A Climatology of Hurricanes for Canada
Improving Our Awareness of the Threat

Part 1: Storm Tracks and Geographical Statistics

Funded by the Search and Rescue New Initiative Fund Project (NIFID # 2002016)

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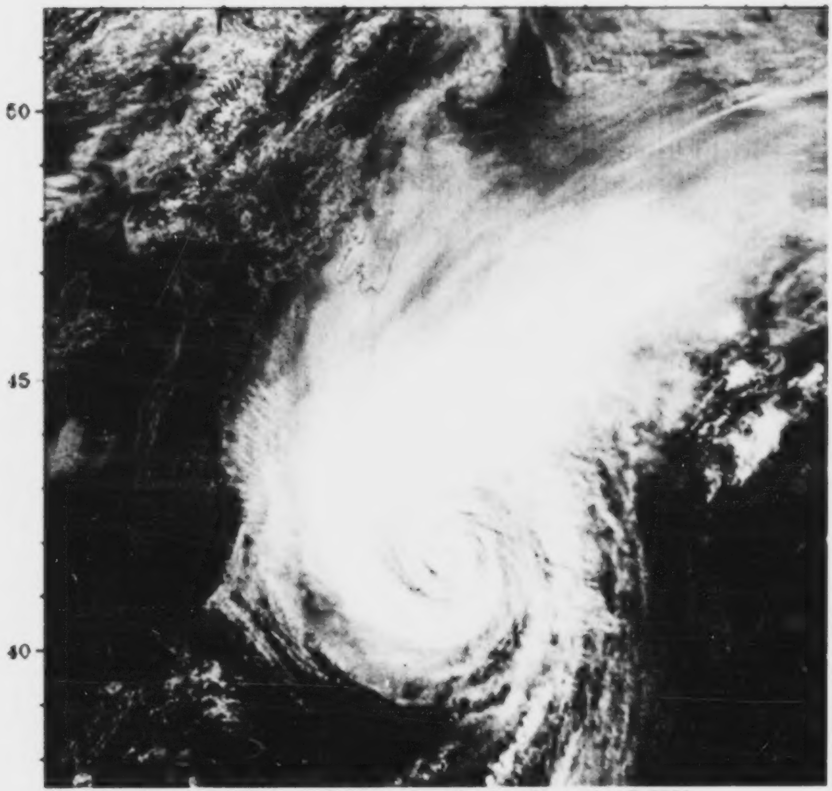

Hurricane Fabian south of Newfoundland on September 7, 2003

Environment Canada Environnement Canada

Canada

105-07010/

TABLE OF CONTENTS

Table of Contents i

Preface 1

Introduction 3

Data Source 3
Statistics Generation 4
Storm Translation Speed 6
Saffir-Simpson (SS) Scale 6
Wind Speed Classification Ranges and Abbreviations Used in this Study 9
Times 9
Interpretation of the Storm Frequency Tables 10
Explanation of the Storm Table Listings 10
Interpretation of the *Frequency by Time* Graphs 11
Bark's and Richard's 1986 Study 11

North Atlantic Basin - 20th Century Storm Summary 13

Storm Frequencies 14
  Decadal and Five Year Periods 14
  Yearly 15
  Monthly 16
  Daily 19
Summary Statistics 21
Storm Table: name, number, date, maximum wind, etc. 21

Canadian Hurricane Centre Response Zone - 20th Century Storm Summary 41

Storm Frequencies 42
  Decadal and Five Year Periods 42
  Yearly 43
  Monthly 44
  Daily 46
Summary Statistics 48
Storm Table: name, number, date, maximum wind, etc. 48

Canada Statistics 57

Map - Eastern Canada 57
Summary Statistics 57
Decadal and Five Year Frequency 58
Yearly Frequency 59
Monthly Frequency 60
Daily Frequency 61
Table: storm name, year, maximum wind over Canada, etc. 62

Provincial Statistics 65

Map - Eastern Canadian Provinces 65
Summary Statistics (all provinces; 50 and 100 year) 65

Newfoundland (Island only) - Storm Frequencies ... 66
Decadal and Five Year Frequency - Newfoundland ... 67
Yearly Frequency- Newfoundland ... 68
Monthly Frequency - Newfoundland ... 69
Daily Frequency - Newfoundland ... 70
Summary Statistics - Newfoundland ... 71
Table: storm name, year, maximum wind, etc. - Newfoundland ... 71
Newfoundland (Labrador Only) - Storm Frequencies ... 72
Decadal and Five Year Frequency - Labrador ... 73
Yearly Frequency - Labrador ... 74
Monthly Frequency - Labrador ... 74
Daily Frequency - Labrador ... 75
Labrador – Summary Statistics ... 75
Table: storm name, year, maximum wind, etc. - Labrador ... 76
Nova Scotia - Storm Frequencies ... 76
Decadal and Five Year Frequency - Nova Scotia ... 77
Yearly Frequency - Nova Scotia ... 78
Monthly Frequency - Nova Scotia ... 79
Daily Frequency - Nova Scotia ... 79
Summary Statistics - Nova Scotia ... 80
Table: storm name, year, maximum wind, etc. - Nova Scotia ... 81
Prince Edward Island - Storm Frequencies ... 82
Decadal and Five Year Frequency - Prince Edward Island ... 83
Yearly Frequency - Prince Edward Island ... 84
Monthly Frequency - Prince Edward Island ... 85
Daily Frequency - Prince Edward Island ... 85
Summary Statistics - Prince Edward Island ... 86
Table: storm name, year, maximum wind, etc. - Prince Edward Island ... 86
New Brunswick - Storm Frequencies ... 87
Decadal and Five Year Frequency - New Brunswick ... 88
Yearly Frequency - New Brunswick ... 89
Monthly Frequency - New Brunswick ... 90
Daily Frequency - New Brunswick ... 91
Summary Statistics - New Brunswick ... 92
Table: storm name, year, maximum wind, etc. - New Brunswick ... 92
Quebec - Storm Frequencies ... 93
Decadal and Five Year Frequency - Quebec ... 94
Yearly Frequency - Quebec ... 95
Monthly Frequency - Quebec ... 96
Daily Frequency - Quebec ... 97
Summary Statistics - Quebec ... 98
Table: storm name, year, maximum wind, etc. - Quebec ... 98
Ontario - Storm Frequencies ... 99
Decadal and Five Year Frequency - Ontario ... 100
Yearly Frequency - Ontario ... 101
Monthly Frequency - Ontario ... 101
Daily Frequency - Ontario ... 102
Summary Statistics - Ontario ... 103
Table: storm name, year, maximum wind, etc. - Ontario ... 103

Canadian Marine Forecast Area Statistics ... 105

- Map - Atlantic Canada Marine Areas 105
- Table - Summary Statistics For Atlantic Canada Combined Marine Areas 106
- All Maritimes and Newfoundland Marine Areas Combined 107
  - *Decadal and Five Year Frequency - All Newfoundland & Maritimes Marine Areas Combined 108*
  - *Yearly Frequency - All Newfoundland & Maritimes Marine Areas Combined 109*
  - *Monthly Frequency - All Newfoundland & Maritimes Marine Areas Combined 110*
  - *Daily Frequency - All Newfoundland & Maritimes Marine Areas Combined 111*
  - *Summary Statistics - All Newfoundland & Maritimes Marine Areas Combined 113*
  - *Table: storm name, number, date, maximum wind, etc. - All Newfoundland & Maritimes Marine Areas Combined 113*
- All Maritimes Marine Areas Combined - Tropical Storm Frequency 118
  - *Decadal and Five Year Frequency - All Maritimes Marine Areas Combined 119*
  - *Yearly Frequency - All Maritimes Marine Areas Combined 120*
  - *Monthly Frequency - All Maritimes Marine Areas Combined 121*
  - *Daily Frequency - All Maritimes Marine Areas Combined 122*
  - *Summary Statistics - All Maritimes Marine Areas Combined 124*
  - *Table: storm name, number, date, maximum wind, etc. - All Maritimes Marine Areas Combined 124*
- All Newfoundland Marine Areas Combined 128
  - *Decadal and Five Year Frequency - All Newfoundland Marine Areas Combined 129*
  - *Yearly Frequency - All Newfoundland Marine Areas Combined 130*
  - *Monthly Frequency - All Newfoundland Marine Areas Combined 131*
  - *Daily Frequency - All Newfoundland Marine Areas Combined 132*
  - *Summary Statistics - All Newfoundland Marine Areas Combined 133*
  - *Table: storm name, number, date, maximum wind, etc. - All Newfoundland Marine Areas Combined133*
- Bay of Fundy (Fundy and Grand Manan Combined Areas) 137
  - *Decadal and Five Year Frequency - Bay of Fundy 138*
  - *Yearly Frequency - Bay of Fundy 139*
  - *Monthly Frequency - Bay of Fundy 140*
  - *Daily Frequency - Bay of Fundy 140*
  - *Summary Statistics - Bay of Fundy 141*
  - *Table: storm name, number, date, maximum wind, etc - Bay of Fundy 141*
- Highly Exposed Atlantic Marine Areas East of Nova Scotia and South of Newfoundland 143
  - *Decadal and Five Year Frequency - Highly Exposed Atlantic Marine Areas 144*
  - *Yearly Frequency - Highly Exposed Atlantic Marine Areas 145*
  - *Monthly Frequency - Highly Exposed Atlantic Marine Areas 146*
  - *Daily Frequency - Highly Exposed Atlantic Marine Areas 147*
  - *Summary Statistics - Highly Exposed Atlantic Marine Areas 149*
  - *Table: storm name, number, date, maximum wind, etc - Highly Exposed Atlantic Marine Areas 149*
- Gulf of St. Lawrence Marine Areas 153
  - *Decadal and Five Year Frequency - Gulf of St. Lawrence Marine Areas 154*
  - *Yearly Frequency - Gulf of St. Lawrence Marine Areas 155*
  - *Monthly Frequency - Gulf of St. Lawrence Marine Areas 156*
  - *Daily Frequency - Gulf of St. Lawrence Marine Areas 157*
  - *Summary Statistics - Gulf of St. Lawrence 158*
  - *Table: storm name, number, date, maximum wind, etc. - Gulf of St. Lawrence 158*
- Marine Areas Northeast of Newfoundland 160
  - *Decadal and Five Year Frequency - Marine Areas Northeast of Newfoundland 161*
  - *Yearly Frequency - Marine Areas Northeast of Newfoundland 162*
  - *Monthly Frequency - Marine Areas Northeast of Newfoundland 163*
  - *Daily Frequency - Marine Areas Northeast of Newfoundland 164*
  - *Summary Statistics - Northeast Newfoundland Marine Areas 165*
  - *Table: storm name, number, date, maximum wind, etc. - Northeast Newfoundland Marine Areas 165*

Atlantic Canada Individual Marine Area Statistics 167
Summary Table - Statistics For Atlantic Canada Individual Marine Areas 167
Map – Maritimes Marine Area Map 169
Fundy 170
Grand Manan 173
Lurcher 176
Brown's Bank 179
George's Bank 182
Southwestern Shore 186
LaHave Bank 189
West Scotian Slope 192
Eastern Shore 196
Sable 199
East Scotian Slope 203
Fourchu 207
Banquereau Bank 210
Laurentian Fan 214
Cabot Strait 218
Northumberland Strait 221
Gulf-Magdalen 224
Chaleur-Miscou 227
Anticosti 230
Map – Newfoundland Marine Areas 234
Belle Isle 235
Northeast Gulf 238
Gulf Port-au-Port 241
Southwest Coast 244
South Coast 247
East Coast 250
Northeast Coast 253
Belle Isle Bank 257
Funk Island Bank 260
Northern Grand Banks 264
Southeastern Grand Banks 268
Southwestern Grand Banks 272

City Statistics **275**

Summary Table - Statistics for 33 Eastern Canadian Points 277
Newfoundland 279
Corner Brook 279
Gander 285
Goose Bay (Labrador) 291
Hibernia (46.75N 48.78W) 296
Port-aux-Basques 303
St. Anthony 309
St. John's 315
Nova Scotia 322
Amherst 322
Antigonish 329
Greenwood 336
Halifax (Shearwater) 343

Sable Island *350*
Sydney *358*
Truro *365*
Yarmouth *372*
Prince Edward Island 379
Charlottetown *379*
Summerside *386*
New Brunswick 392
Edmundston *392*
Fredericton *398*
Miramichi (Chatham) *405*
Moncton *411*
Saint John *418*
Québec 425
Gaspé *425*
Îles-de-la-Madeleine *431*
Montréal *438*
Natashquan *443*
Ville de Québec *449*
Rimouski *455*
Sept-Îles *460*
Sherbrooke *466*
Ontario 472
Ottawa *472*
Toronto (Downsview) *478*
Windsor *483*

Grid Statistics - 1° Latitude by 1° Longitude Cells 487

Description 487
Atlantic Basin 489
Basin Grid Cell Thematic Maps *489*
Basin Contour Maps *498*
Atlantic Canada Sub-Grid 505
Atlantic Canada Grid Cell Thematic Maps *506*
Atlantic Canada Sub-Grid Contour Maps *519*

Grid Statistics - 2° Latitude by 2° Longitude Cells 527

MAPS: Frequency Ranges and Contours (2°x 2° grid) 528
1901 to 2000 - All Intensities *528*
Range Map - crossings/hits per cell - 06°N to 72°N - 10°E to 110°W 528
Contour Map - crossings/hits per cell 10°N to 60°N - 40°W to 100°W 529
Contour Map (zoom) - crossings/hits per cell 30°N to 60°N - 40°W to 80°W 530
Range Map - crossings/hits per 1000 km^2 - 06°N to 72°N - 10°E to 110°W 531
Contour Map - crossings/hits per 1000 km^2 10°N to 60°N - 40°W to 100°W 532
Contour Map (zoom) - crossings/hits per 1000 km^2 30°N to 60°N - 40°W to 80°W 533
1901 to 2000 - Hurricane Force Storms (SS1-5) *534*
Range Map - crossings/hits per cell - 06°N to 72°N - 10°E to 110°W 534
Contour Map - crossings/hits per cell 10°N to 60°N - 40°W to 100°W 535
Contour Map (zoom) - crossings/hits per cell 30°N to 60°N - 40°W to 80°W 536
Range Map - crossings/hits per 1000 km^2 - 06°N to 72°N - 10°E to 110°W 537
Contour Map - crossings/hits per 1000 km^2 10°N to 60°N - 40°W to 100°W 538
Contour Map (zoom) - crossings/hits per 1000 km^2 30°N to 60°N - 40°W to 80°W 539

1901 to 2000 – Intense Hurricane Force Storms (SS3-5) *540*
Range Map - crossings/hits per cell - 06°N to 72°N - 10°E to 110°W 540
Contour Map – crossings/hits per cell 10°N to 60°N 40°W to 100°W 541
Contour Map (zoom) – crossings/hits per cell 30°N to 60°N 40°W to 80°W 542
Range Map - crossings/hits per 1000km^2 - 06°N to 72°N - 10°E to 110°W 543
Contour Map - crossings/hits per 1000km^2 - 10°N to 60°N - 40°W to 100°W 544
Contour Map (zoom) - crossings/hits per 1000km^2 - 30°N to 60°N - 40°W to 80°W 545
1951 to 2000 - All Intensities *546*
Range Map - crossings/hits per cell - 06°N to 72°N - 10°E to 110°W 546
Contour Map - crossings/hits per cell 10°N to 60°N - 40°W to 100°W 547
Contour Map (zoom) - crossings/hits per cell 30°N to 60°N - 40°W to 80°W 548
Range Map - crossings/hits per 1000 km^2 - 06°N to 72°N - 10°E to 110°W 549
Contour Map - crossings/hits per 1000 km^2 10°N to 60°N - 40°W to 100°W 550
Contour Map (zoom) - crossings/hits per 1000 km^2 30°N to 60°N - 40°W to 80°W 551
1951 to 2000 - Hurricane Force Storms (SS1-5) *552*
Range Map - crossings/hits per cell - 06°N to 72°N - 10°E to 110°W 552
Contour Map - crossings/hits per cell 10°N to 60°N - 40°W to 100°W 553
Contour Map (zoom) - crossings/hits per cell 30°N to 60°N - 40°W to 80°W 554
Range Map - crossings/hits per 1000 km^2 - 06°N to 72°N - 10°E to 110°W 555
Contour Map - crossings/hits per 1000km^2 10°N to 60°N - 40°W to 100°W 556
Contour Map (zoom) - crossings/hits per 1000km^2 30°N to 60°N - 40°W to 80°W 557
1951 to 2000 – Intense Hurricane Force Storms (SS3-5) *558*
Range Map - crossings/hits per cell - 06°N to 72°N - 10°E to 110°W 558
Contour Map - crossings/hits per cell - 10°N to 60°N - 40°W to 100°W 559
Contour Map (zoom)- crossings/hits per cell - 30°N to 60°N - 40°W to 80°W 560
Range Map - crossings/hits per 1000km^2 - 06°N to 72°N - 10°E to 110°W 561
Contour Map - crossings/hits per 1000km^2 - 10°N to 60°N - 40°W to 100°W 562
Contour Map (zoom)- crossings/hits per 1000km^2 - 30°N to 60°N - 40°W to 80°W 563

Preferred Storm Tracks 565

Landfalling Hurricanes - Eastern Canada 575

Newfoundland *'Landfalling'* Hurricanes (Labrador Only) 578
Newfoundland Landfalling Hurricanes (Island Only) 579
Nova Scotia Landfalling Hurricanes 581
Prince Edward Island Landfalling Hurricanes 583
New Brunswick Hurricanes - *Provincial Crossing Points* 584
Quebec *'Landfalling'* Hurricanes - *Provincial Crossing Points* 585
Ontario *'Landfalling'* Hurricanes - *Provincial Crossing Points* 586

El Niño Southern Oscillation (ENSO) 587

North Atlantic Basin - 1901 to 2000 587
Canadian Hurricane Centre Response Zone – 1901 to 2000 589

References 591

Appendix I - NHC Best Tracks Example with Mapinfo$^{\copyright}$ Equivalent 593

Appendix II – The Climatology of Tropical Cyclones in Atlantic Canada (Barks and Richards) 597

1. INTRODUCTION 598
1.1 Objective of Study *598*

1.2 Definition of Tropical Cyclone.....599
1.3 Origin.....599
1.4 Description.....599
1.5 Classification.....600
1.6 Evolution, Transformation and Decay.....600
2. GENERAL PATTERN OF MOVEMENT.....600
3. FREQUENCY OF OCCURRENCE.....601
4. GENERAL CHARACTERISTICS OF TROPICAL CYCLONES.....601
4.1 Wind.....601
4.2 Rain.....602
4.3 Wind and Rain Swaths.....603
5. ANALYSIS OF TROPICAL CYCLONE TRACKS.....604
5.1 Data Sources.....604
5.2 Tracks of Tropical Cyclones.....604
5.3 Frequency of Tropical Cyclone Tracks.....604
5.4 Tropical Cyclone Tracks by Wind Category.....605
5.5 Tropical Cyclone Proximity.....605
6. SUMMARY.....607
7. ACKNOWLEDGEMENTS.....607
8. REFERENCES.....608
9. FIGURES.....609

Appendix III – Atlantic Canada Grid Cell statistics (Tabular Data).....615

040°N to 041°N.....617
041°N to 042°N.....620
042°N to 043°N.....624
043°N to 044°N.....627
044°N to 045°N.....631
045°N to 046°N.....634
046°N to 047°N.....638
047°N to 048°N.....642
048°N to 049°N.....645
049°N to 050°N.....649
050°N to 051°N.....652
051°N to 052°N.....656
052°N to 053°N.....659
053°N to 054°N.....663
054°N to 055°N.....667

Appendix IV – North Atlantic Basin and Eastern North America Grid Cell Statistics (Tabular Data).....671

007°N to 008°N.....672
008°N to 009°N.....673
009°N to 010°N.....674
010°N to 011°N.....676
011°N to 012°N.....679
012°N to 013°N.....682
013°N to 014°N.....686
014°N to 015°N.....689
015°N to 016°N.....693
016°N to 017°N.....696

017°N to 018°N....699
018°N to 019°N....703
019°N to 020°N....707
020°N to 021°N....710
021°N to 022°N....714
022°N to 023°N....718
023°N to 024°N....721
024°N to 025°N....725
025°N to 026°N....728
026°N to 027°N....731
027°N to 028°N....735
028°N to 029°N....738
029°N to 030°N....741
030°N to 031°N....745
031°N to 032°N....748
032°N to 033°N....751
033°N to 034°N....755
034°N to 035°N....758
035°N to 036°N....762
036°N to 037°N....765
037°N to 038°N....769
038°N to 039°N....772
039°N to 040°N....777
040°N to 041°N....781
041°N to 042°N....784
042°N to 043°N....788
043°N to 044°N....792
044°N to 045°N....795
045°N to 046°N....799
046°N to 047°N....802
047°N to 048°N....805
048°N to 049°N....809
049°N to 050°N....812
050°N to 051°N....815
051°N to 052°N....818
052°N to 053°N....821
053°N to 054°N....824
054°N to 055°N....827
055°N to 056°N....830
056°N to 057°N....832
057°N to 058°N....835
058°N to 059°N....837
059°N to 060°N....839
060°N to 061°N....841
061°N to 062°N....843
062°N to 063°N....845
063°N to 064°N....846
064°N to 065°N....847
065°N to 066°N....847
066°N to 067°N....847
067°N to 068°N....848
068°N to 069°N....848

069°N to 070°N 848
070°N to 071°N 849

Appendix V: Tropical Storm Track Maps 851

1850's 852
1860's 856
1870's 861
1880's 866
1890's 871
1900's 876
1910's 881
1920's 886
1930's 891
1940's 896
1950's 901
1960's 906
1970's 911
1980's 916
1990's 921
2000's 926

Appendix VI: Sea Surface Temperature Maps - Jan to Dec Normals 929

Appendix VII: Hurricanes and Tropical Storms In Atlantic Canada (Galbraith) .941

1. INTRODUCTION 942
2. STORM TYPES 942
3. FREQUENCY OF OCCURRENCE 944
4. FORECASTING THE MOVEMENT OF TROPICAL CYCLONES 944
   4.1 General Patterns of Cyclone Movement 944
   4.2 Steering Principle 945
   4.3 The Effect of Long and Shortwave Patterns on Cyclone Movement 946
   4.4 Numerical Forecasts 947
5. NATIONAL HURRICANE CENTER ROLE 947
6. THE DECAY OF TROPICAL CYCLONES 948
   6.1 General Factors 948
   6.2 Criteria for Capture by a Cold Vortex 949
   6.3 Criteria for Evolution into a Wave on the Polar Front 950
   6.4 Evolution or Absorption into Extratropical Cyclones 950
   6.5 Interactions between Tropical and Extratropical Systems 951
7. CHARACTERISTICS OF DECAYING TROPICAL CYCLONES 951
   7.1 General 951
   7.2 Changes in the Wind Pattern 952
   7.3 Rainfall 953
   7.4 Swell, Waves and Tides 954
8. CONCLUDING REMARKS 955
9. BIBLIOGRAPHY / REFERENCES 956
10. APPENDIX – EXAMPLE SYNOPTIC ANALYSES 959

PREFACE

Atmospheric scientists are in universal agreement that the Atlantic basin has returned to an extended period of heightened hurricane activity, as evidenced by this past decade reporting the highest frequency of tropical cyclones of any decade on record. While extensive climatologies of hurricanes and tropical storms exist for the entire Atlantic or sub-basins (such as near the Caribbean or U.S. east coast), few statistics have been developed for the Canadian threat of tropical cyclones.

At the time that this climatology was being prepared in May 2003, Rebecca Hanson was publishing her undergraduate thesis, "Actual Versus Perceived Risk Due to Hurricanes in Nova Scotia" (Department of Geography, Saint Mary's University, Halifax, Nova Scotia). Two notable conclusions were drawn by Ms. Hanson. First, although "people who had experienced a hurricane cited that impact due to hurricanes was highly likely, they also felt that damage due to hurricanes was only somewhat likely." Second, "in the event of a major landfalling hurricane, a major concern to emergency measures organizers evidenced in the survey results was the participants' low awareness of preparedness measures constructed by federal, provincial, and local governments."

These words seemed prophetic when, five months later on September 29, the poor response of a mostly unprepared public was witnessed during the landfall of Hurricane Juan, the worst hurricane in modern history for Halifax and much of Nova Scotia and Prince Edward Island. The upswing in Atlantic hurricane activity, compounded by a Canadian public who is, as a whole, poorly educated on the impacts of hurricanes, constitute the key ingredients for a natural hazard to become a natural disaster. Clearly, a much greater awareness is required to keep Canadians and their property safe.

This project addresses the knowledge-deficiency through the compilation of an extensive 20th century climatology of tropical cyclones and their threats to Canada. For a climatology of this magnitude, this project represents a good first start. In all cases, the law of diminishing returns is at work with increasing effort required to mine older data. For example, the data for the second half of the 20th century is considered more robust because of the advent of air reconnaissance near the end of the Second World War and satellite imagery in 1960. As a result a separate climatology for the period 1951-2000 has been included. A 10-year Atlantic hurricane dataset reanalysis project is underway in the United States and will not likely be finished before 2007. Once it is completed, this Canadian climatology will need to be redeveloped. As well, the climatology of impacts presented is an ongoing work-in-progress as it employs proxy and anecdotal data sets.

Part 1 is a detailed climatology of tropical cyclone tracks and intensities for the full Atlantic basin, the Canadian Hurricane Centre Response Zone, Canada, and her territorial waters. For Canadian inland areas, the climatology is broken down by provinces, cities, and forecast areas. Because of their rarity and significance, all landfalling hurricanes on record (1851-2003) are included. In the marine environment of the Great Lakes, St. Lawrence River, and Atlantic Canada, the climatology is broken down by forecast areas and also bulk regional groupings (Newfoundland waters; Labrador waters; Gulf of St. Lawrence waters; Bay of Fundy waters; etc.).

Part 2 is a detailed climatology of tropical cyclone impacts in Canada and her waters during the period 1900-2004 (1900 was included because of the significance to Canada of the Great Galveston Hurricane). Data sources include major Canadian newspapers, the Canadian Disaster Database, and the Canadian Hurricane Centre archives, to name a few. Each year is highlighted with a map showing the tracks of all tropical cyclones impacting Canada or her waters, storm and impact summary information, and detailed impact reports. Where possible, fatality and damage statistics are provided. It must be recognized that these statistics should not be viewed as complete because of the time constraints to conduct such research. However, it is believed that the majority of significant impacts, including fatalities and damages, have been captured.

Future work includes:

- the ongoing revision of the data presented in the report
- completion of extratropical track extensions of tropical cyclones (underway)
- climatology of tropical cyclone gale radii
- climatology of tropical cyclone rainfall
- climatology of tropical cyclone storm surge

This project was funded by the Canadian National Search and Rescue Secretariat's New Initiatives Fund (Project - NIFID # 2002016)

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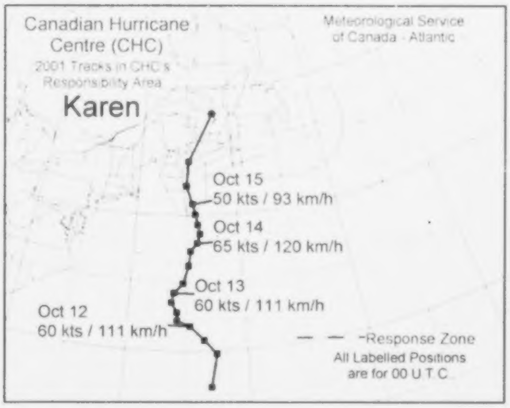
A Climatology of Hurricanes for Canada
Improving Our Awareness of the Threat

INTRODUCTION


Canadian Hurricane Centre (CHC)
2001 Tracks in CHC's Responsibility Area
Meteorological Service of Canada - Atlantic
Karen
Oct 15
50 kts / 93 km/h
Oct 14
65 kts / 120 km/h
Oct 13
60 kts / 111 km/h
Oct 12
60 kts / 111 km/h
Response Zone
All Labelled Positions are for 00 U.T.C.

Clouds swirling around the centre of tropical storm Karen three kilometres below… Oct 2001

Data Source

National Hurricane Center "Best Track" or HURDAT Archive (1851 to 2001)
(ftp://ftp.nhc.noaa.gov/pub/tracks/tracks.atl)

Note that the 2002 and 2003 storms depicted in the land-falling hurricanes section as well as the track maps were extracted from the latest release of HURDAT (spring 2004).

The National Hurricane Center (NHC - Miami Florida) has the responsibility for maintaining a database of historical Atlantic tropical cyclones. The database is maintained in a highly formatted text file and includes six-hour track positions, maximum winds, central pressures, etc. The database is updated yearly, at the end of the hurricane season. A hurricane forecasting specialist is assigned a particular storm and reviews all observational data with respect to that storm. This late analysis utilizes all data that was available at the time of the storm and also includes any information that became available later. Thus, the final product represents the *'Best Track'* that can be produced for each storm and becomes part of the official record.

The reader is cautioned that track information during the first half of the 20th century should be used with caution. Two events are generally considered to be significant in increasing the quality of the archived storm information. The first was the initiation of reconnaissance flights in the 1944 (http://www.hurricanehunters.com/) the second was the introduction of weather satellites beginning with Tiros-1 launched April 1, 1960.

There are other known deficiencies in the official archive as well. An extensive reanalysis of the database is now underway (http://www.aoml.noaa.gov/hrd/hurdat/) and changes are anticipated in the near future. The "Best Tracks" file, as it existed in April 2002, is used in this project. Accordingly, it is likely that some aspects of this climatology will be outdated shortly after release because of the ongoing nature of the reanalysis project.

Twentieth century tracks were analyzed in this study (1901-2000). However, an initial inspection of the database indicated a very low frequency of storms during the first three decades of the 20th century. It was felt that this was not a true reflection of the situation and probably indicated lower detection of storms rather than lower rate of occurrence. This situation would result in unrealistically low frequency statistics. Consequently, storm frequencies were often produced for both the entire century (1901-2000) as well as the last half of the century (1951-2000).

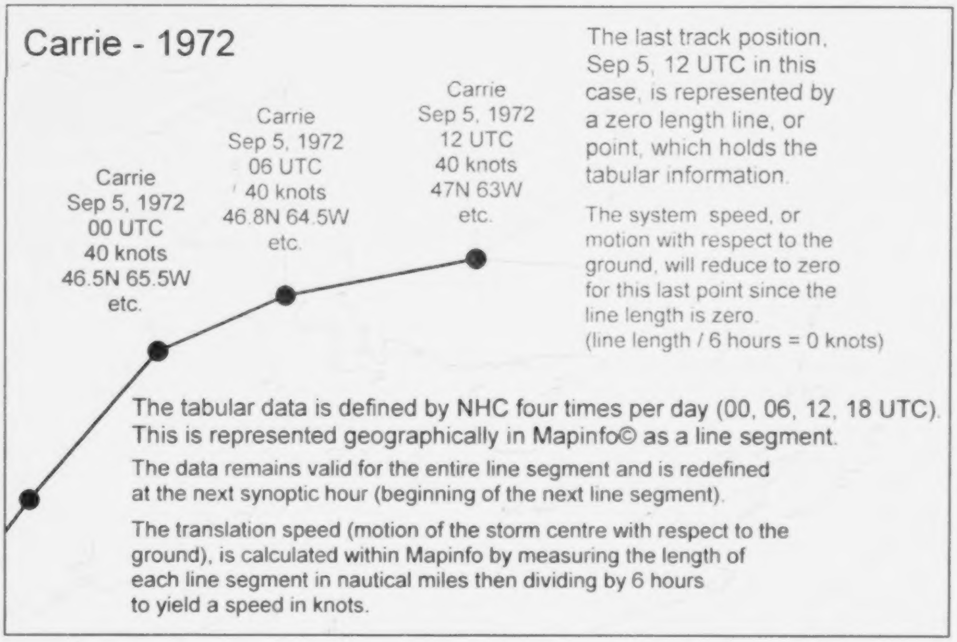
Statistics Generation

Track statistics were developed using the Mapinfo©[1] desktop mapping package. In order to utilize Mapinfo©, the NHC "*Best Tracks*" database had to be ported to a compatible format. This was accomplished via a Visual Basic .NET©[2] program written specifically for the purpose. The resulting Mapinfo© hurricane database uses multiple line segments to represent each storm track. The segments can be displayed geographically on a map background. Storm details (date, time, storm name, wind speed, etc.) are internally tied to each line segment. Thus, a line segment represents all the archived NHC data for a six-hour period during the event. See Figure 1.

[1] MapInfo© Corporation
One Global View
Troy, New York 12180

[2] Visual Basic©
Microsoft Corporation
1 Microsoft Way
Redmond, WA 98052

A portion of the NHC database and the equivalent Mapinfo© conversion is included in Appendix I.


Carrie - 1972
Carrie Sep 5, 1972 00 UTC 40 knots 46.5N 65.5W etc.
Carrie Sep 5, 1972 06 UTC 40 knots 46.8N 64.5W etc.
Carrie Sep 5, 1972 12 UTC 40 knots 47N 63W etc.

The last track position, Sep 5, 12 UTC in this case, is represented by a zero length line, or point, which holds the tabular information.

The system speed, or motion with respect to the ground, will reduce to zero for this last point since the line length is zero. (line length / 6 hours = 0 knots)

The tabular data is defined by NHC four times per day (00, 06, 12, 18 UTC). This is represented geographically in Mapinfo© as a line segment.

The data remains valid for the entire line segment and is redefined at the next synoptic hour (beginning of the next line segment).

The translation speed (motion of the storm centre with respect to the ground), is calculated within Mapinfo by measuring the length of each line segment in nautical miles then dividing by 6 hours to yield a speed in knots.

Figure 1: Geographical representation of the storm data in Mapinfo©

- An initial Mapinfo© geographic database query was conducted for each area of interest.

  Example: all line segments that touched or entered a geographical area such as the East Scotian Slope marine forecast area were extracted (see Figure 2.).
- Structured Query Language commands were used to calculate storm frequencies from the initial selection of storms.

Frequently a given storm might have more than one line segment transiting the area (the storm took more than 6 hours to move through). The segment with the highest maximum sustained wind speed was used to calculate storm frequencies (first occurrence). In other words, data from only one line segment per storm was used in the wind summary statistics.

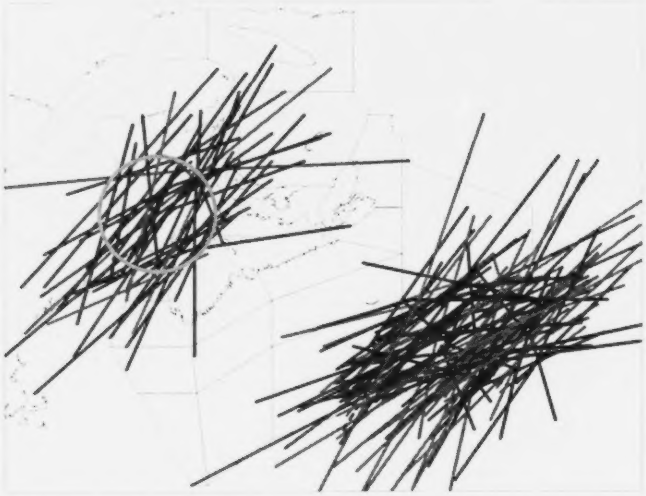


Figure 2: Storms track segments passing through the Laurentian Fan marine area and within a 75 nautical mile radius of Fredericton, New Brunswick

Example:

Three different storms with Saffir-Simpson 2 strength (SS2) are found within the area.

> Over the 50 or 100 year period, three unique storms reached SS2 intensity while crossing the area. Note that the exact positions of the storms is not contained in this study... the storms could have touched the boundary or passed directly through the middle of the area.

Storm Translation Speed

Storm translation speed[3] is not directly contained in the NHC archive. This information was calculated within Mapinfo© by extracting the line length in nautical miles, then dividing by 6 (hours) to obtain the speed in knots. See Figure 1.

[3] **Translation Speed:**
Speed of the storm center with respect to the land or ocean... not to be confused with the storm's maximum sustained wind speed which is contained in the official archive.

Saffir-Simpson (SS) Scale

The Saffir-Simpson[4] scale is not directly contained in the NHC archive. These numbers were calculated from the archived maximum wind speed. See the next section of the wind speed ranges associated with the scale levels.

The SS value was calculated regardless of the stage of development of the storm... it was applied to tropical storms and hurricanes as well as storms deemed to be extratropical[5] or subtropical[6].

[4] **Saffir-Simpson Scale:**
The Saffir-Simpson Hurricane Scale is a 1-5 rating based on the hurricane's present intensity. This is used to give an estimate of the potential property damage and flooding expected along the coast from a hurricane landfall. Wind speed is the determining factor in the scale. (http://www.nhc.noaa.gov/aboutsshs.html)

[5.] **Extratropical:**
A term used in advisories and tropical summaries to indicate that a cyclone has lost its "tropical" characteristics. The term implies both poleward displacement of the cyclone and the conversion of the cyclone's primary energy source from the release of latent heat of condensation to baroclinic (the temperature contrast between warm and cold air masses) processes. It is important to note that cyclones can become extratropical and still retain winds of hurricane or tropical storm force. (http://www.nhc.noaa.gov/aboutgloss.html)

Most storms of tropical origin are becoming extra tropical as they enter Canada's land or offshore areas. The storms are moving from very warm ocean areas to land or cold water and their energy source is being lost.

[6] **Subtropical Cyclone:**
A non-frontal low pressure system that has characteristics of both tropical and extratropical cyclones. The most common type is an upper-level cold low with circulation extending to the surface layer and maximum sustained winds generally occurring at a radius of about 100 miles or more from the center. In comparison to tropical cyclones, such systems have a relatively broad zone of maximum winds that is located farther from the center, and typically have a less symmetric wind field and distribution of convection.

A second type of subtropical cyclone is a mesoscale low originating in or near a frontolyzing zone of horizontal wind shear, with radius of maximum sustained winds generally less than 30 miles. The entire circulation may initially have a diameter of less than 100 miles. These generally short-lived systems may be either cold core or warm core. (http://www.nhc.noaa.gov/aboutgloss.shtml)

[7.] **Tropical Cyclone:**
A warm-core non-frontal synoptic-scale cyclone, originating over tropical or subtropical waters, with organized deep convection and a closed surface wind circulation about a well-defined center. Once formed, a tropical cyclone is maintained by the extraction of heat energy from the ocean at high temperature and heat export at the low temperatures of the upper troposphere. In this they differ from extratropical cyclones, which derive their energy from horizontal temperature contrasts in the atmosphere (baroclinic effects). (http://www.nhc.noaa.gov/aboutgloss.shtml)

Wind Speed Classification Ranges and Abbreviations Used in this Study

The following abbreviations are used in the summary statistics tables throughout this document.

Wind Speed Classification Ranges

Abbreviation	Definition	Winds (knots)	Winds (km/h)	Winds (mph)
TD	Tropical Depression	< 34	< 63	< 39
TS	Tropical Storm	34-63	63-118	39-73
G[8]	Gale[8]	34-47	63-87	39-54
S[9]	Storm[9]	48-63	88-118	55-73
SS1 (or S1)	Saffir-Simpson 1	64-82	119-153	74-95
SS2 (or S2)	Saffir-Simpson 2	83-95	154-177	96-110
SS3 (or S3)	Saffir-Simpson 3	96-113	178-209	111-130
SS4 (or S4)	Saffir-Simpson 4	114-135	210-251	131-155
SS5 (or S5)	Saffir-Simpson 5	>135	>251	>155
H	Hurricane Strength	≥64	≥117	≥74
<H	Less Than Hurricane	<64	<117	<74
ALL	Count of all tropical storms moving through the area, regardless of wind strength			
Avg Sys Spd (kts)[10] (or Spd) (or Sys-Spd)	The average system or translation speed of the storm in knots[3]			

1.0 knot = 1.1516 mph = 0.5148 m/s = 1.853 km/h

Notes:

[8] Gale: Canadian marine warning definition for mid-latitude storms

[9] Storm: Canadian marine warning definition for mid-latitude storms

Tropical Storm winds span the Canadian Gale and Storm range…

# Gales + # Storms = # Tropical Storms

[10] The average of the system translation speeds for all storms that crossed the area or grid cell. If a storm took more than 6 hours to transit the cell, then all of its 6 hour translation speeds were used in the average. The structure of the Mapinfo© database is such that the last report for a given storm will be represented geographically by a zero length line or point and the resulting translation speed will be reduced to zero. Inclusion of these false speeds would yield incorrect averages and they were excluded. Value is in knots.

Times

All times are in *UTC* (*Universal Coordinated Time…* previously *Greenwich Mean Time*).
There is a 4 hour time difference between *Atlantic Standard Time* and *UTC*.
Example: 20:00 or 8:00 pm AST = 0000 *UTC* (the beginning of a new day)
Through much of the hurricane season, Atlantic Canada is operating on *Daylight Savings Time…* a 3 hour time difference is applicable in this case and the new *UTC* day begins at 21:00 or 9:00 pm ADT.

Interpretation of the Storm Frequency Tables

The numbers found in the frequency tables that follow are a count of each unique storm to cross a given area. For example, over the Canadian Hurricane Centre Response Zone the following 100 and 50 year statistics were generated:

100 Yr	**TD**	**TS**	**G**	**S**	**S1**	**S2**	**S3**	**S4**	**S5**	**H**	**<H**	**ALL**	**Sys-Spd**
#	38	140	69	71	89	57	22	5	0	173	178	351	24.1
Return	2.6	0.7	1.4	1.4	1.1	1.8	4.5	20	NA	0.6	0.6	0.3	
50 Yr	**TD**	**TS**	**G**	**S**	**S1**	**S2**	**S3**	**S4**	**S5**	**H**	**<H**	**ALL**	**Sys-Spd**
#	22	88	33	55	63	29	10	4	0	106	110	216	24.5
Return	2.3	0.6	1.5	0.9	0.8	1.7	5	12.5	NA	0.5	0.5	0.2	

All = 351	351 unique storms touched or crossed the area during the 100 year period. The count is not based upon the storm intensity as it moved through the area… A tropical depression counts as one as does a force 3 hurricane.
S1=89	89 distinct storms of Saffir-Simpson strength 1 transited the area during the 100 year study period. These 89 storms would be included in the *'All'* value above.

Explanation of the Storm Table Listings

Detailed storm information is provided at the end of each section. The data is provided as a tabular listing and generally has the following columns:

Name	**Date**	**Storm #**	**MaxWind (kts)**	**SS Scale**	**AvgSysSpd (kts)**	**Pres (mb)**	**Comment**	**ENSO**
Gladys	Oct 21, 1968	8	65	SS1	25.0	975	E	Neutral

Name	The designated storm name (storms prior to 1950 were not named)
Date	The date (first instance) on which the storm reported its highest sustained wind speed while transiting a given area.
Storm #	The yearly storm number. 3 indicates the third named storm for a given year.
MaxWind (kts)	The maximum sustained wind. All wind statistics are generated from this number.
SS Scale	As noted earlier, The Saffir-Simpson scale is derived from the *Max Wind (kts)* column irrespective of the stage of development of the storm (which could be classified as tropical, subtropical or extra-tropical).
AvgSysSpd (kts)	The average translation speed of the storm *as it crossed the area of interest* (the speed of motion of the storm centre along the ground or over the ocean)
Pres (mb)	Atmospheric pressure in millibars
Comment	'S' subtropical stage * or empty tropical cyclone stage E extratropical stage W wave stage - rarely used
ENSO	Japan Meteorological Agency (JMA) rating of the ENSO cycle for the year

Interpretation of the *Frequency by Time* Graphs

Numbers shown on some graphs may vary somewhat from the tabular storm listings. The storm details tables show the date on which the first occurrence of the highest wind was reported. A storm may have taken more than 6 hours to cross a given area. Thus it is possible to show more storms for say September 15th on the *frequency by day* table than are shown in the storm details table. (example: a storm reaches the area late on the 14th with 50 knots maximum sustained wind… it is still over the area on the 15th but with 40 knot winds. It counts as *both* a September 14th and a September 15th storm on the *frequency by day* table but the storm details table will show the 14th since that is the date of maximum wind.)

Bark's and Richard's 1986 Study

Barks and Richards studied Atlantic Canada hurricanes in 1986 (*The Climatology of Tropical Cyclones in Atlantic Canada* - see Appendix II). Their work represented a considerable achievement in that manual examination of storm tracks was used to develop frequency statistics. The current study employs computer based geographic structured query language techniques. A rudimentary comparison of the 1986 tropical storm frequencies with the values obtained in this study was considered useful. The comparison also provides some historical continuity for tropical storm studies in the region.

A key finding from the 1986 work was that tropical storms passing within 400 km (average distance) of a site could generate trace amounts of rain. Storms that passed within 260 km (average distance) of the site produced gale force winds (>33 knots).

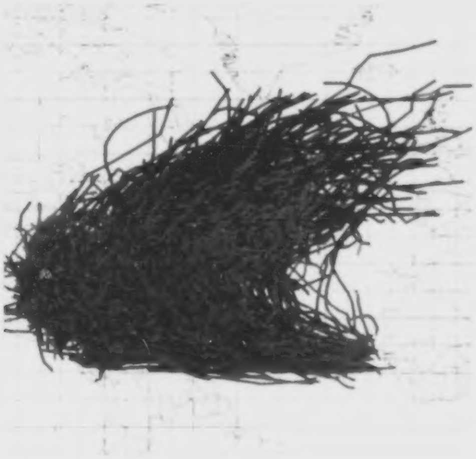
The 260 and 400 km values are used in a number of places in the current investigation. In particular, all city or point location storm frequencies are generated using 260 and 400 km radii circles centered on the location. The same approach was used in generating statistics for the one-by-one degree grid cells over Atlantic Canada.

It is recognized that simply using the 260 and 400 km radii circles, with no consideration given to the quadrant, will yield poor results in many cases; the storm frequencies generated will be correct but interpreting them as indications of rain or wind would often be misleading. True tropical storms tend to have symmetric rain and wind patterns centered on the storm centre. Storms moving into Canadian waters or land areas are often undergoing rapid changes as they lose tropical characteristics and begin to take on many of the attributes of mid-latitude storms. This often results in rainfalls mainly to the left of the storm track and stronger winds predominately confined to the right side of the storm track. The desktop mapping approach used in this study required that some arbitrary area around the location be examined. A circular shape was deemed to be the most appropriate since storm tracks can actually run in any direction. Further, it is possible for some storms to maintain their symmetrical patterns for some distance into Canadian territory. Trying to determine the storm symmetry and attempting to isolate areas to the left or right of tracks for non-symmetrical storms would require manual techniques which were well beyond the scope of the study.

Key Points:

1. 260 km and 400 km storm frequencies can be used with confidence.
2. Great care should exercised when interpreting the 260 km and 400 km storm frequencies as indications of possible rain or gale force winds. In many cases, the storm frequencies would overestimate the occurrence of rain or wind which would tend to reside over only half the circular search areas.

NORTH ATLANTIC BASIN - 20TH CENTURY STORM SUMMARY



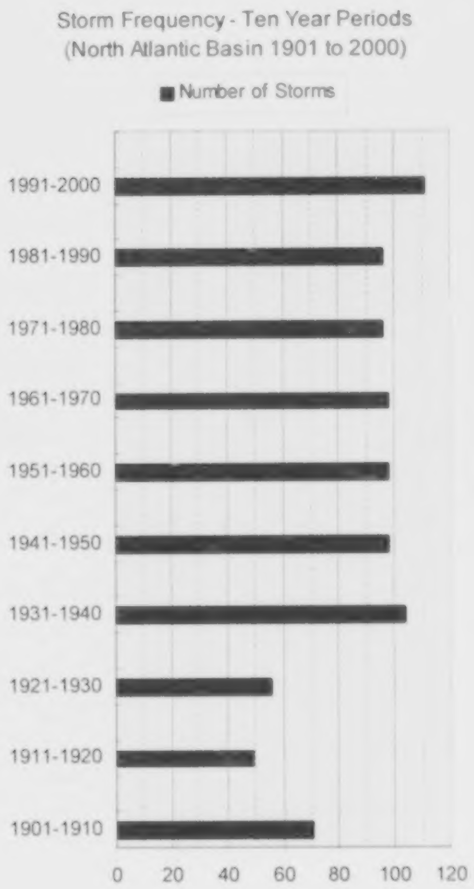
877 storms were reported over the Atlantic Basin during the 1901 to 2000 period while 499 storms occurred during the 1951 to 2000 period. Subsets of these storm tracks were used to evaluate tropical storm frequencies for given areas. For example, all storms that crossed Nova Scotia were extracted from the original 877 and that subset was used for the Nova Scotia statistics.

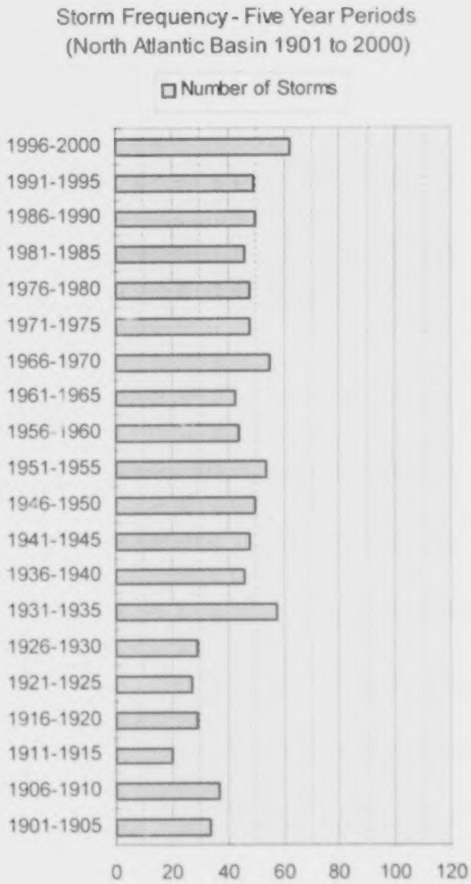
The full Atlantic Basin storm summary is provided in this section. It can be used as a general reference to the 20th century tropical storm events on the North Atlantic.

See the yearly track maps for the specific paths over Canada and adjacent offshore waters (Appendix V).

Storm Frequencies

Decadal and Five Year Periods


Storm Frequency - Ten Year Periods
(North Atlantic Basin 1901 to 2000)

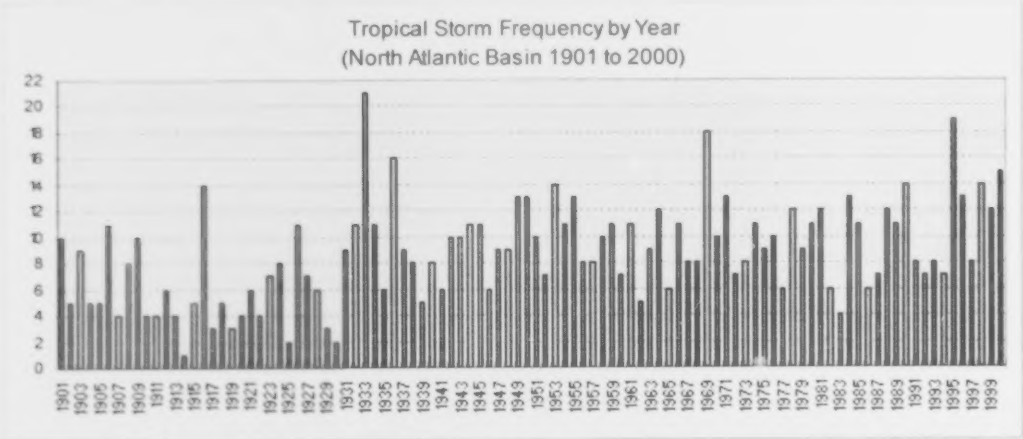

Storm Frequency - Five Year Periods
(North Atlantic Basin 1901 to 2000)

10-Year Periods	Number of Storms	5-Year Periods	Number of Storms
1901-1910	71	1901-1905	34
		1906-1910	37
1911-1920	49	1911-1915	20
		1916-1920	29
1921-1930	56	1921-1925	27
		1926-1930	29
1931-1940	104	1931-1935	58
		1936-1940	46
1941-1950	98	1941-1945	48
		1946-1950	50
1951-1960	98	1951-1955	54

10-Year Periods	Number of Storms	5-Year Periods	Number of Storms
		1956-1960	44
1961-1970	98	1961-1965	43
		1966-1970	55
1971-1980	96	1971-1975	48
		1976-1980	48
1981-1990	96	1981-1985	46
		1986-1990	50
1991-2000	111	1991-1995	49
		1996-2000	62

Yearly

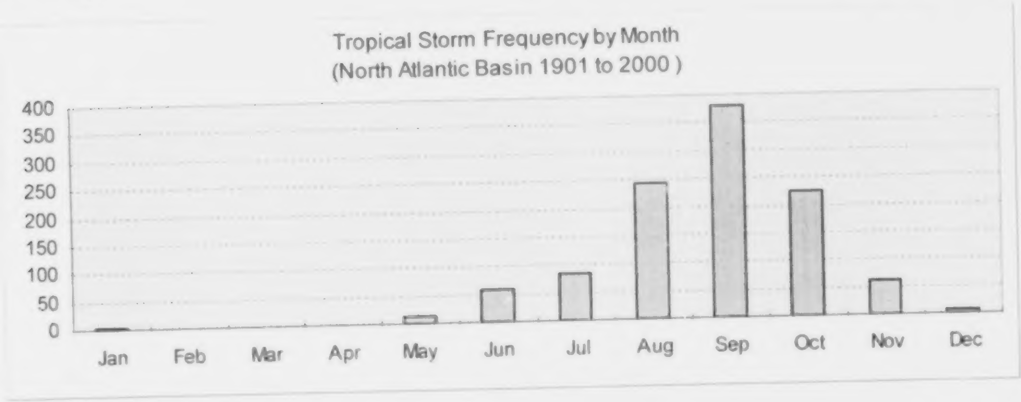
Note: One storm (Alice 1954) persisted from December into the new year. Alice was counted in both 1954 and 1955.



Year	#	Year	#	Year	#	Year	#	Year	#
1901	10	1921	6	1941	6	1961	11	1981	12
1902	5	1922	4	1942	10	1962	5	1982	6
1903	9	1923	7	1943	10	1963	9	1983	4
1904	5	1924	8	1944	11	1964	12	1984	13
1905	5	1925	2	1945	11	1965	6	1985	11
1906	11	1926	11	1946	6	1966	11	1986	6
1907	4	1927	7	1947	9	1967	8	1987	7
1908	8	1928	6	1948	9	1968	8	1988	12
1909	10	1929	3	1949	13	1969	18	1989	11
1910	4	1930	2	1950	13	1970	10	1990	14
1911	4	1931	9	1951	10	1971	13	1991	8
1912	6	1932	11	1952	7	1972	7	1992	7
1913	4	1933	21	1953	14	1973	8	1993	8
1914	1	1934	11	1954	11	1974	11	1994	7
1915	5	1935	6	1955	13	1975	9	1995	19
1916	14	1936	16	1956	8	1976	10	1996	13
1917	3	1937	9	1957	8	1977	6	1997	8
1918	5	1938	8	1958	10	1978	12	1998	14

Year	#	Year	#	Year	#	Year	#	Year	#
1919	3	1939	5	1959	11	1979	9	1999	12
1920	4	1940	8	1960	7	1980	11	2000	15

Monthly



Note: Storms that span months were counted in both months

January	#	February	#	March	#	April	#	May	#	June	#
1955	1	1952	1	1908	1	1992	1	1932	1	1901	1
1978	1							1933	1	1904	1
								1934	1	1907	1
								1940	1	1912	1
								1948	1	1913	1
								1951	1	1916	1
								1953	1	1921	1
								1959	1	1922	1
								1970	1	1924	1
								1972	1	1929	1
								1976	1	1931	1
								1981	1	1933	1
								1997	1	1934	1
										1939	1
										1945	1
										1946	1
										1953	1
										1954	1
										1956	1
										1958	1
										1960	1
										1964	1
										1965	1
										1966	1
										1972	1
										1974	1
										1975	1
										1979	1
										1981	1
										1989	1
										1991	1

January	#	February	#	March	#	April	#	May	#	June	#
										1993	1
										1994	1
										1995	1
										1996	1
										1999	1
										1902	2
										1906	2
										1909	2
										1957	2
										1982	2
										1986	2
										1997	2
										1936	3
										1959	3
										1968	3
Total	**2**	**Total**	**1**	**Total**	**1**	**Total**	**1**	**Total**	**13**	**Total**	**59**

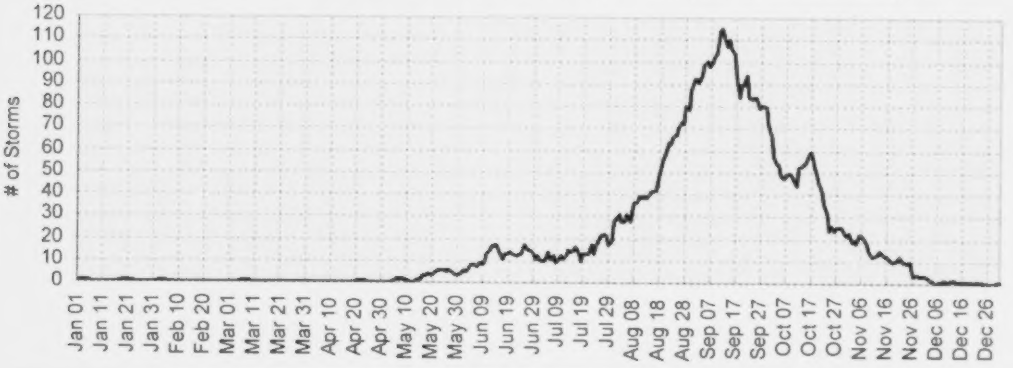
July	#	August	#	September	#	October	#	November	#	December	#
1903	1	1903	1	1902	1	1902	1	1901	1	1925	1
1908	1	1906	1	1904	1	1907	1	1902	1	1953	1
1912	1	1910	1	1911	1	1909	1	1903	1	1954	1
1915	1	1913	1	1912	1	1910	1	1904	1	1975	1
1919	1	1923	1	1914	1	1911	1	1906	1	1984	1
1931	1	1927	1	1919	1	1913	1	1909	1	1989	1
1934	1	1939	1	1922	1	1915	1	1911	1	1998	1
1937	1	1946	1	1925	1	1928	1	1912	1		
1943	1	1956	1	1929	1	1931	1	1916	1		
1946	1	1957	1	1930	1	1936	1	1919	1		
1947	1	1959	1	1938	1	1948	1	1924	1		
1948	1	1966	1	1939	1	1956	1	1925	1		
1954	1	1967	1	1946	1	1957	1	1926	1		
1955	1	1968	1	1997	1	1966	1	1927	1		
1956	1	1977	1	1907	2	1968	1	1931	1		
1961	1	1982	1	1910	2	1979	1	1934	1		
1963	1	1986	1	1913	2	1980	1	1935	1		
1964	1	1991	1	1917	2	1982	1	1938	1		
1969	1	1992	1	1918	2	1987	1	1939	1		
1971	1	1901	2	1923	2	1989	1	1942	1		
1974	1	1908	2	1983	2	1903	2	1946	1		
1976	1	1911	2	1986	2	1905	2	1948	1		
1978	1	1917	2	1994	2	1912	2	1949	1		
1980	1	1924	2	1905	3	1921	2	1953	1		
1981	1	1928	2	1909	3	1922	2	1954	1		
1991	1	1930	2	1915	3	1924	2	1956	1		
1994	1	1931	2	1921	3	1929	2	1964	1		
1998	1	1934	2	1924	3	1937	2	1966	1		
1901	2	1943	2	1927	3	1939	2	1967	1		
1926	2	1948	2	1928	3	1940	2	1971	1		
1936	2	1952	2	1931	3	1941	2	1972	1		
1945	2	1954	2	1934	3	1944	2	1978	1		
1959	2	1962	2	1935	3	1945	2	1984	1		
1960	2	1963	2	1940	3	1946	2	1986	1		
1970	2	1965	2	1947	3	1954	2	1988	1		
1973	2	1972	2	1959	3	1955	2	1989	1		
1975	2	1975	2	1960	3	1958	2	1991	1		
1979	2	1983	2	1965	3	1962	2	1995	1		

July	#	August	#	September	#	October	#	November	#	December	#
1985	2	1994	2	1968	3	1964	2	1996	1		
1996	2	1909	3	1970	3	1965	2	1932	2		
1909	3	1916	3	1973	3	1971	2	1933	2		
1916	3	1918	3	1987	3	1973	2	1969	2		
1944	3	1926	3	1990	3	1974	2	1980	2		
1990	3	1932	3	1991	3	1975	2	1985	2		
1933	4	1935	3	1901	4	1976	2	1994	2		
1966	4	1937	3	1903	4	1977	2	1998	2		
1989	4	1938	3	1906	4	1981	2	1999	2		
1995	4	1940	3	1908	4	1988	2	1961	3		
1997	4	1942	3	1920	4	1997	2	1981	3		
		1944	3	1941	4	1901	3				
		1947	3	1942	4	1904	3				
		1949	3	1943	4	1908	3				
		1951	3	1944	4	1916	3				
		1953	3	1945	4	1926	3				
		1960	3	1952	4	1933	3				
		1970	3	1956	4	1934	3				
		1973	3	1957	4	1935	3				
		1979	3	1962	4	1938	3				
		1980	3	1972	4	1942	3				
		1981	3	1976	4	1947	3				
		1985	3	1977	4	1949	3				
		1987	3	1978	4	1951	3				
		1915	4	1982	4	1952	3				
		1945	4	1985	4	1961	3				
		1950	4	1989	4	1963	3				
		1958	4	1992	4	1970	3				
		1971	4	1993	4	1978	3				
		1974	4	1999	4	1984	3				
		1984	4	1916	5	1985	3				
		1988	4	1926	5	1991	3				
		1993	4	1932	5	1992	3				
		1996	4	1936	5	1999	3				
		1999	4	1948	5	1927	4				
		2000	4	1951	5	1932	4				
		1955	5	1958	5	1943	4				
		1964	5	1963	5	1953	4				
		1978	5	1966	5	1959	4				
		1989	5	1967	5	1967	4				
		1998	5	1975	5	1996	4				
		1969	6	1979	5	1998	4				
		1976	6	1980	5	1906	5				
		1936	7	1981	5	1990	5				
		1990	7	1996	5	1923	6				
		1933	8	1950	6	1950	7				
		1995	9	1953	6	1969	7				
				1954	6	1995	7				
				1955	6	2000	7				
				1961	6						
				1964	6						
				1971	6						
				1974	6						
				1933	7						
				1937	7						
				1969	7						

July	#	August	#	September	#	October	#	November	#	December	#
				1988	7						
				1995	7						
				2000	7						
				1949	8						
				1998	8						
				1984	9						
Total	**84**	**Total**	**244**	**Total**	**381**	**Total**	**223**	**Total**	**61**	**Total**	**7**

Daily

Tropical Storm Frequency by Day - North Atlantic Basin 1901 to 2000
(115 individual storms have been reported on Sep 11 between 1901 and 2000)



Note: Storms will generally span more than one day. The storm is counted in each day

Day	#	Day	#	Day	#	Day	#	Day	#	Day	#
Jan 01	1	Mar 01	0	May 01	0	Jul 01	12	Sep 01	92	Nov 01	23
Jan 02	1	Mar 02	0	May 02	0	Jul 02	10	Sep 02	91	Nov 02	19
Jan 03	1	Mar 03	0	May 03	0	Jul 03	10	Sep 03	94	Nov 03	20
Jan 04	1	Mar 04	0	May 04	0	Jul 04	10	Sep 04	99	Nov 04	18
Jan 05	1	Mar 05	0	May 05	1	Jul 05	14	Sep 05	100	Nov 05	22
Jan 06	1	Mar 06	1	May 06	2	Jul 06	11	Sep 06	98	Nov 06	22
Jan 07	0	Mar 07	1	May 07	2	Jul 07	12	Sep 07	99	Nov 07	20
Jan 08	0	Mar 08	1	May 08	2	Jul 08	9	Sep 08	103	Nov 08	18
Jan 09	0	Mar 09	1	May 09	2	Jul 09	10	Sep 09	104	Nov 09	15
Jan 10	0	Mar 10	0	May 10	1	Jul 10	12	Sep 10	114	Nov 10	12
Jan 11	0	Mar 11	0	May 11	1	Jul 11	11	Sep 11	115	Nov 11	12
Jan 12	0	Mar 12	0	May 12	0	Jul 12	12	Sep 12	112	Nov 12	13
Jan 13	0	Mar 13	0	May 13	0	Jul 13	15	Sep 13	107	Nov 13	15
Jan 14	0	Mar 14	0	May 14	1	Jul 14	14	Sep 14	110	Nov 14	14
Jan 15	0	Mar 15	0	May 15	2	Jul 15	15	Sep 15	106	Nov 15	12
Jan 16	0	Mar 16	0	May 16	2	Jul 16	16	Sep 16	104	Nov 16	12
Jan 17	0	Mar 17	0	May 17	3	Jul 17	13	Sep 17	94	Nov 17	11
Jan 18	1	Mar 18	0	May 18	3	Jul 18	10	Sep 18	84	Nov 18	10
Jan 19	1	Mar 19	0	May 19	4	Jul 19	13	Sep 19	90	Nov 19	10
Jan 20	1	Mar 20	0	May 20	3	Jul 20	13	Sep 20	90	Nov 20	11
Jan 21	1	Mar 21	0	May 21	4	Jul 21	13	Sep 21	94	Nov 21	12

Day	#	Day	#	Day	#	Day	#	Day	#	Day	#
Jan 22	1	Mar 22	0	May 22	5	Jul 22	17	Sep 22	84	Nov 22	10
Jan 23	1	Mar 23	0	May 23	6	Jul 23	13	Sep 23	83	Nov 23	10
Jan 24	0	Mar 24	0	May 24	6	Jul 24	16	Sep 24	84	Nov 24	9
Jan 25	0	Mar 25	0	May 25	6	Jul 25	20	Sep 25	84	Nov 25	10
Jan 26	0	Mar 26	0	May 26	5	Jul 26	21	Sep 26	79	Nov 26	6
Jan 27	0	Mar 27	0	May 27	6	Jul 27	22	Sep 27	80	Nov 27	3
Jan 28	0	Mar 28	0	May 28	5	Jul 28	21	Sep 28	80	Nov 28	4
Jan 29	0	Mar 29	0	May 29	4	Jul 29	17	Sep 29	79	Nov 29	3
Jan 30	0	Mar 30	0	May 30	3	Jul 30	19	Sep 30	72	Nov 30	3
Jan 31	0	Mar 31	0	May 31	4	Jul 31	28	Oct 01	66	Dec 01	3
Feb 01	0	Apr 01	0	Jun 01	4	Aug 01	29	Oct 02	57	Dec 02	3
Feb 02	1	Apr 02	0	Jun 02	6	Aug 02	31	Oct 03	54	Dec 03	2
Feb 03	1	Apr 03	0	Jun 03	5	Aug 03	28	Oct 04	54	Dec 04	2
Feb 04	1	Apr 04	0	Jun 04	7	Aug 04	28	Oct 05	49	Dec 05	0
Feb 05	1	Apr 05	0	Jun 05	8	Aug 05	31	Oct 06	47	Dec 06	0
Feb 06	0	Apr 06	0	Jun 06	8	Aug 06	28	Oct 07	49	Dec 07	1
Feb 07	0	Apr 07	0	Jun 07	7	Aug 07	33	Oct 08	50	Dec 08	1
Feb 08	0	Apr 08	0	Jun 08	9	Aug 08	36	Oct 09	49	Dec 09	2
Feb 09	0	Apr 09	0	Jun 09	8	Aug 09	37	Oct 10	47	Dec 10	1
Feb 10	0	Apr 10	0	Jun 10	10	Aug 10	39	Oct 11	44	Dec 11	1
Feb 11	0	Apr 11	0	Jun 11	13	Aug 11	38	Oct 12	52	Dec 12	2
Feb 12	0	Apr 12	0	Jun 12	15	Aug 12	39	Oct 13	53	Dec 13	2
Feb 13	0	Apr 13	0	Jun 13	16	Aug 13	38	Oct 14	54	Dec 14	1
Feb 14	0	Apr 14	0	Jun 14	17	Aug 14	41	Oct 15	55	Dec 15	1
Feb 15	0	Apr 15	0	Jun 15	16	Aug 15	42	Oct 16	59	Dec 16	1
Feb 16	0	Apr 16	0	Jun 16	14	Aug 16	42	Oct 17	60	Dec 17	1
Feb 17	0	Apr 17	0	Jun 17	11	Aug 17	46	Oct 18	52	Dec 18	1
Feb 18	0	Apr 18	0	Jun 18	13	Aug 18	50	Oct 19	50	Dec 19	1
Feb 19	0	Apr 19	0	Jun 19	13	Aug 19	56	Oct 20	46	Dec 20	1
Feb 20	0	Apr 20	0	Jun 20	14	Aug 20	58	Oct 21	42	Dec 21	1
Feb 21	0	Apr 21	1	Jun 21	13	Aug 21	64	Oct 22	36	Dec 22	1
Feb 22	0	Apr 22	1	Jun 22	12	Aug 22	63	Oct 23	32	Dec 23	1
Feb 23	0	Apr 23	1	Jun 23	12	Aug 23	66	Oct 24	24	Dec 24	1
Feb 24	0	Apr 24	1	Jun 24	13	Aug 24	67	Oct 25	26	Dec 25	0
Feb 25	0	Apr 25	0	Jun 25	15	Aug 25	70	Oct 26	24	Dec 26	0
Feb 26	0	Apr 26	0	Jun 26	17	Aug 26	73	Oct 27	25	Dec 27	0
Feb 27	0	Apr 27	0	Jun 27	15	Aug 27	72	Oct 28	25	Dec 28	0
Feb 28	0	Apr 28	0	Jun 28	15	Aug 28	80	Oct 29	25	Dec 29	0
Feb 29	0	Apr 29	0	Jun 29	13	Aug 29	78	Oct 30	24	Dec 30	1
		Apr 30	0	Jun 30	11	Aug 30	87	Oct 31	21	Dec 31	1
						Aug 31	92				

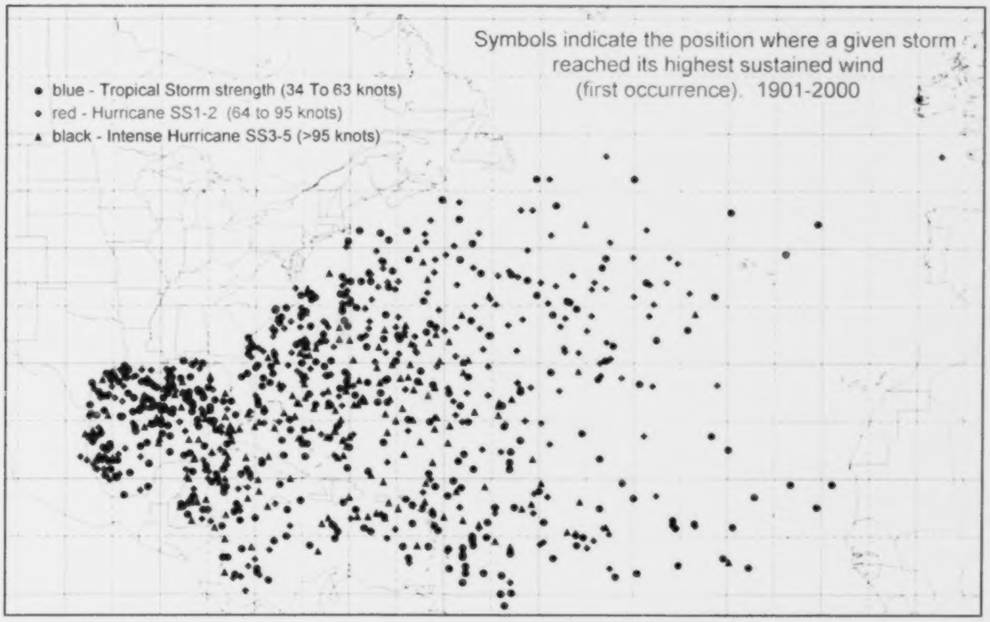
Summary Statistics

Note: The statistics displayed below were generated from one record for each storm. The record chosen was the first report of the highest maximum sustained wind during the event. This explains why no tropical depression strength storms are included in the table… every storm eventually reported winds in excess of 33 knots. Example: during the 100 year period, 507 of the 877 storms eventually grew to hurricane strength.

100 Yr	**TD**	**TS**	**G**	**S**	**S1**	**S2**	**S3**	**S4**	**S5**	**H**	**<H**	**ALL**
#	0	370	195	175	171	127	105	82	22	507	370	877
Return	NA	0.3	0.5	0.6	0.6	0.8	1	1.2	4.5	0.2	0.3	0.1
50 Yr	**TD**	**TS**	**G**	**S**	**S1**	**S2**	**S3**	**S4**	**S5**	**H**	**<H**	**ALL**
#	0	204	87	117	121	54	57	47	16	295	204	499
Return	NA	0.2	0.6	0.4	0.4	0.9	0.9	1.1	3.1	0.2	0.2	0.1

Storm Table: name, number, date, maximum wind, etc.

Note: The records displayed below were extracted by choosing the first example (chronologically) of the highest sustained wind reported during a storm's life-span. The latitude and longitudes indicate the position where that first occurrence of the highest wind took place and are displayed on the map below


Symbols indicate the position where a given storm reached its highest sustained wind (first occurrence). 1901-2000
● blue - Tropical Storm strength (34 To 63 knots)
● red - Hurricane SS1-2 (64 to 95 knots)
▲ black - Intense Hurricane SS3-5 (>95 knots)

Name	Date	Hour UTC	Longi-tude	Lati-tude	Yearly Storm #	Max Wind (kts)	SS Scale	Pres (mb)	Com-ment	ENSO
Not Named	Jun 10, 1901	0	-82.2	17.1	1	35	TS			Neutral
Not Named	Jul 05, 1901	0	-74.2	14.2	2	60	TS			Neutral
Not Named	Jul 08, 1901	12	-73.0	23.8	3	85	SS2			Neutral

Name	Date	Hour UTC	Longitude	Latitude	Yearly Storm #	Max Wind (kts)	SS Scale	Pres (mb)	Comment	ENSO
Not Named	Aug 13, 1901	18	-88.4	27.6	4	85	SS2			Neutral
Not Named	Sep 04, 1901	12	-54.3	25.5	5	105	SS3			Neutral
Not Named	Sep 14, 1901	18	-80.9	20.8	6	50	TS			Neutral
Not Named	Sep 14, 1901	6	-29.4	15.8	7	40	TS			Neutral
Not Named	Sep 26, 1901	6	-85.4	22.8	8	45	TS			Neutral
Not Named	Oct 11, 1901	12	-65.1	30.2	9	45	TS			Neutral
Not Named	Nov 02, 1901	18	-62.8	28.4	10	50	TS			Neutral
Not Named	Jun 13, 1902	18	-84.8	26.2	1	45	TS			El Nino
Not Named	Jun 26, 1902	18	-97.0	27.8	2	80	SS1			El Nino
Not Named	Sep 21, 1902	0	-51.5	25.0	3	85	SS2			El Nino
Not Named	Oct 08, 1902	6	-92.1	21.9	4	85	SS2			El Nino
Not Named	Nov 04, 1902	12	-53.0	37.7	5	50	TS			El Nino
Not Named	Jul 23, 1903	0	-74.2	29.5	1	90	SS2			La Nina
Not Named	Aug 11, 1903	18	-79.6	18.9	2	105	SS3			La Nina
Not Named	Sep 11, 1903	6	-77.5	24.9	3	85	SS2			La Nina
Not Named	Sep 15, 1903	18	-72.3	33.1	4	85	SS2			La Nina
Not Named	Sep 24, 1903	0	-72.7	29.7	5	50	TS			La Nina
Not Named	Sep 29, 1903	6	-60.6	34.6	6	85	SS2			La Nina
Not Named	Oct 04, 1903	12	-58.0	30.1	7	85	SS2			La Nina
Not Named	Oct 09, 1903	6	-66.2	30.9	8	85	SS2			La Nina
Not Named	Nov 22, 1903	6	-43.6	30.0	9	85	SS2			La Nina
Not Named	Jun 14, 1904	0	-77.4	19.5	1	60	TS			El Nino
Not Named	Sep 12, 1904	12	-71.1	27.1	2	85	SS2			El Nino
Not Named	Oct 16, 1904	18	-79.1	24.8	3	65	SS1			El Nino
Not Named	Oct 21, 1904	12	-53.7	24.5	4	45	TS			El Nino
Not Named	Nov 01, 1904	18	-91.8	26.2	5	45	TS			El Nino
Not Named	Sep 06, 1905	6	-58.0	14.0	1	50	TS			El Nino
Not Named	Sep 13, 1905	12	-57.9	22.1	2	50	TS			El Nino
Not Named	Sep 27, 1905	18	-92.2	25.9	3	45	TS			El Nino
Not Named	Oct 09, 1905	12	-63.0	31.0	4	85	SS2		E	El Nino
Not Named	Oct 08, 1905	0	-92.9	25.8	5	45	TS			El Nino
Not Named	Jun 10, 1906	12	-84.8	25.0	1	45	TS			La Nina
Not Named	Jun 19, 1906	0	-72.8	33.6	2	90	SS2			La Nina
Not Named	Sep 05, 1906	0	-70.6	22.0	3	115	SS4			La Nina
Not Named	Sep 16, 1906	12	-71.1	32.1	4	125	SS4			La Nina
Not Named	Sep 26, 1906	18	-87.7	28.4	5	125	SS4			La Nina
Not Named	Sep 29, 1906	6	-34.3	32.9	6	60	TS			La Nina
Not Named	Oct 09, 1906	6	-81.5	11.5	7	85	SS2			La Nina
Not Named	Oct 17, 1906	12	-82.6	23.7	8	115	SS4			La Nina
Not Named	Oct 13, 1906	6	-60.9	33.1	9	35	TS			La Nina
Not Named	Oct 18, 1906	12	-66.0	28.6	10	45	TS			La Nina
Not Named	Nov 06, 1906	12	-76.7	15.0	11	35	TS			La Nina
Not Named	Jun 28, 1907	12	-86.9	28.8	1	50	TS			Neutral
Not Named	Sep 19, 1907	6	-84.2	24.2	2	50	TS			Neutral
Not Named	Sep 28, 1907	18	-87.9	28.7	3	45	TS			Neutral
Not Named	Oct 19, 1907	0	-62.2	35.4	4	45	TS			Neutral
Not Named	Mar 07, 1908	18	-62.2	18.8	1	85	SS2			La Nina

Name	Date	Hour UTC	Longi- tude	Lati- tude	Yearly Storm #	Max Wind (kts)	SS Scale	Pres (mb)	Com- ment	ENSO
Not Named	Jul 30, 1908	12	-78.3	33.0	2	85	SS2			La Nina
Not Named	Sep 01, 1908	0	-75.2	34.2	3	45	TS			La Nina
Not Named	Sep 13, 1908	0	-75.4	23.5	4	105	SS3			La Nina
Not Named	Sep 18, 1908	0	-93.4	27.4	5	60	TS			La Nina
Not Named	Oct 02, 1908	12	-75.2	29.0	6	85	SS2			La Nina
Not Named	Oct 16, 1908	18	-80.7	12.4	7	70	SS1			La Nina
Not Named	Oct 21, 1908	6	-66.7	27.4	8	35	TS			La Nina
Not Named	Jun 27, 1909	12	-88.7	26.0	1	50	TS			La Nina
Not Named	Jun 28, 1909	12	-79.8	26.8	2	45	TS			La Nina
Not Named	Jul 20, 1909	18	-91.3	26.9	3	120	SS4			La Nina
Not Named	Aug 04, 1909	12	-71.8	16.0	4	50	TS			La Nina
Not Named	Aug 25, 1909	18	-86.5	21.7	5	105	SS3			La Nina
Not Named	Aug 29, 1909	0	-76.4	25.1	6	45	TS			La Nina
Not Named	Sep 19, 1909	18	-87.8	26.2	7	120	SS4			La Nina
Not Named	Sep 25, 1909	18	-83.0	23.0	8	45	TS			La Nina
Not Named	Oct 10, 1909	0	-83.2	20.0	9	105	SS3			La Nina
Not Named	Nov 11, 1909	6	-78.0	14.6	10	50	TS			La Nina
Not Named	Aug 27, 1910	12	-85.2	21.1	1	50	TS			La Nina
Not Named	Sep 13, 1910	0	-90.4	25.3	2	105	SS3			La Nina
Not Named	Sep 25, 1910	12	-64.1	33.3	3	105	SS3			La Nina
Not Named	Oct 14, 1910	6	-83.3	21.0	4	105	SS3			La Nina
Not Named	Aug 09, 1911	18	-83.0	26.0	1	70	SS1			El Nino
Not Named	Aug 25, 1911	12	-72.8	27.3	2	85	SS2			El Nino
Not Named	Sep 09, 1911	12	-80.0	13.0	3	85	SS2			El Nino
Not Named	Oct 27, 1911	12	-81.5	20.4	4	45	TS			El Nino
Not Named	Jun 11, 1912	0	-89.9	24.7	1	50	TS			Neutral
Not Named	Jul 15, 1912	12	-80.7	31.3	2	45	TS			Neutral
Not Named	Sep 12, 1912	6	-84.8	28.5	3	70	SS1			Neutral
Not Named	Oct 06, 1912	18	-75.3	33.1	4	80	SS1			Neutral
Not Named	Oct 13, 1912	6	-87.3	20.8	5	85	SS2			Neutral
Not Named	Nov 18, 1912	0	-78.7	17.6	6	130	SS4			Neutral
Not Named	Jun 25, 1913	0	-86.5	19.1	1	85	SS2			El Nino
Not Named	Sep 01, 1913	6	-72.5	31.9	2	80	SS1			El Nino
Not Named	Sep 08, 1913	6	-47.4	31.3	3	85	SS2			El Nino
Not Named	Oct 06, 1913	6	-70.8	34.7	4	50	TS			El Nino
Not Named	Sep 16, 1914	12	-78.2	29.1	1	45	TS			Neutral
Not Named	Aug 02, 1915	0	-80.9	29.1	1	45	TS			Neutral
Not Named	Aug 16, 1915	12	-91.1	26.2	2	120	SS4			Neutral
Not Named	Sep 02, 1915	6	-61.6	31.8	3	105	SS3			Neutral
Not Named	Sep 03, 1915	0	-83.7	22.5	4	85	SS2			Neutral
Not Named	Sep 29, 1915	12	-89.7	27.8	5	115	SS4	935		Neutral
Not Named	Jul 05, 1916	6	-87.7	27.5	1	105	SS3			La Nina
Not Named	Jul 18, 1916	0	-72.3	27.6	2	105	SS3			La Nina
Not Named	Jul 13, 1916	12	-77.9	30.2	3	85	SS2			La Nina
Not Named	Aug 18, 1916	0	-90.2	23.1	4	110	SS3			La Nina
Not Named	Aug 22, 1916	0	-64.1	18.2	5	85	SS2	988		La Nina
Not Named	Aug 29, 1916	6	-65.1	15.6	6	85	SS2			La Nina

Name	Date	Hour UTC	Longi-tude	Lati-tude	Yearly Storm #	Max Wind (kts)	SS Scale	Pres (mb)	Com-ment	ENSO
Not Named	Sep 04, 1916	12	-74.8	24.2	7	35	TS			La Nina
Not Named	Sep 11, 1916	12	-70.0	22.7	8	45	TS			La Nina
Not Named	Sep 18, 1916	18	-54.6	35.1	9	90	SS2			La Nina
Not Named	Sep 21, 1916	18	-64.2	22.1	10	105	SS3			La Nina
Not Named	Oct 02, 1916	6	-72.2	26.5	11	40	TS			La Nina
Not Named	Oct 12, 1916	12	-61.0	27.9	12	105	SS3			La Nina
Not Named	Oct 17, 1916	6	-90.1	23.5	13	105	SS3			La Nina
Not Named	Nov 15, 1916	0	-85.5	21.6	14	70	SS1			La Nina
Not Named	Aug 09, 1917	0	-72.8	32.5	1	45	TS			Neutral
Not Named	Sep 04, 1917	6	-63.6	29.9	2	105	SS3			Neutral
Not Named	Sep 25, 1917	18	-83.2	22.3	3	105	SS3			Neutral
Not Named	Aug 06, 1918	12	-91.7	27.2	1	90	SS2			El Nino
Not Named	Aug 23, 1918	6	-63.6	12.7	2	70	SS1			El Nino
Not Named	Aug 24, 1918	12	-77.3	34.0	3	50	TS			El Nino
Not Named	Sep 04, 1918	18	-64.8	30.8	4	85	SS2			El Nino
Not Named	Sep 11, 1918	6	-66.3	16.7	5	40	TS			El Nino
Not Named	Jul 03, 1919	12	-86.0	27.5	1	50	TS			Neutral
Not Named	Sep 10, 1919	12	-82.7	24.6	2	120	SS4			Neutral
Not Named	Nov 11, 1919	6	-59.5	27.4	3	40	TS			Neutral
Not Named	Sep 12, 1920	6	-52.0	27.8	1	95	SS2			Neutral
Not Named	Sep 22, 1920	0	-91.0	29.4	2	90	SS2	982		Neutral
Not Named	Sep 22, 1920	18	-77.0	33.0	3	70	SS1			Neutral
Not Named	Sep 29, 1920	6	-89.0	25.7	4	70	SS1			Neutral
Not Named	Jun 20, 1921	6	-95.2	22.7	1	85	SS2			Neutral
Not Named	Sep 06, 1921	18	-96.1	21.6	2	70	SS1			Neutral
Not Named	Sep 13, 1921	12	-69.5	26.4	3	105	SS3			Neutral
Not Named	Sep 13, 1921	0	-61.5	33.4	4	60	TS			Neutral
Not Named	Oct 18, 1921	6	-57.1	40.4	5	50	TS			Neutral
Not Named	Oct 24, 1921	12	-86.0	23.4	6	120	SS4			Neutral
Not Named	Jun 15, 1922	18	-96.0	22.7	1	45	TS			La Nina
Not Named	Sep 20, 1922	18	-65.5	29.9	2	130	SS4			La Nina
Not Named	Oct 15, 1922	0	-84.5	24.8	3	45	TS			La Nina
Not Named	Oct 17, 1922	18	-85.3	20.7	4	85	SS2			La Nina
Not Named	Sep 07, 1923	6	-58.7	36.8	1	90	SS2			Neutral
Not Named	Sep 28, 1923	18	-74.3	30.7	2	105	SS3			Neutral
Not Named	Oct 15, 1923	12	-92.7	24.2	3	85	SS2			Neutral
Not Named	Oct 22, 1923	6	-74.8	31.3	4	60	TS		E	Neutral
Not Named	Oct 18, 1923	12	-68.0	37.8	5	45	TS			Neutral
Not Named	Oct 17, 1923	12	-89.5	26.0	6	45	TS			Neutral
Not Named	Oct 26, 1923	6	-63.8	25.1	7	45	TS			Neutral
Not Named	Jun 18, 1924	12	-87.6	17.6	1	40	TS			La Nina
Not Named	Aug 24, 1924	18	-77.5	28.2	2	115	SS4			La Nina
Not Named	Aug 31, 1924	0	-66.0	21.4	3	90	SS2			La Nina
Not Named	Sep 13, 1924	18	-86.6	26.6	4	70	SS1			La Nina
Not Named	Sep 29, 1924	12	-86.6	26.3	5	50	TS		E	La Nina
Not Named	Oct 12, 1924	6	-87.0	26.7	6	50	TS			La Nina
Not Named	Oct 19, 1924	18	-84.6	22.3	7	105	SS3			La Nina

Name	Date	Hour UTC	Longi-tude	Lati-tude	Yearly Storm #	Max Wind (kts)	SS Scale	Pres (mb)	Com-ment	ENSO
Not Named	Nov 11, 1924	18	-69.6	23.8	8	85	SS2			La Nina
Not Named	Sep 06, 1925	0	-91.2	21.3	1	40	TS			El Nino
Not Named	Dec 02, 1925	0	-79.2	31.0	2	85	SS2			El Nino
Not Named	Jul 26, 1926	0	-75.1	23.5	1	120	SS4			Neutral
Not Named	Aug 05, 1926	6	-63.8	28.8	2	105	SS3			Neutral
Not Named	Aug 25, 1926	0	-90.9	26.8	3	90	SS2			Neutral
Not Named	Sep 14, 1926	12	-70.0	32.0	4	120	SS4			Neutral
Not Named	Sep 12, 1926	6	-55.4	29.7	5	90	SS2			Neutral
Not Named	Sep 16, 1926	18	-71.2	21.8	6	130	SS4			Neutral
Not Named	Sep 12, 1926	18	-83.3	19.2	7	40	TS			Neutral
Not Named	Sep 25, 1926	12	-33.5	34.3	8	105	SS3			Neutral
Not Named	Oct 03, 1926	6	-80.0	16.6	9	35	TS			Neutral
Not Named	Oct 22, 1926	6	-69.6	30.3	10	115	SS4			Neutral
Not Named	Nov 12, 1926	6	-78.6	11.2	11	35	TS			Neutral
Not Named	Aug 22, 1927	12	-66.2	25.6	1	105	SS3			Neutral
Not Named	Sep 09, 1927	6	-56.0	22.5	2	90	SS2			Neutral
Not Named	Sep 29, 1927	6	-47.3	31.0	3	70	SS1			Neutral
Not Named	Sep 26, 1927	12	-60.5	30.2	4	105	SS3			Neutral
Not Named	Oct 02, 1927	18	-79.2	28.7	5	50	TS			Neutral
Not Named	Oct 17, 1927	0	-86.5	18.5	6	40	TS			Neutral
Not Named	Oct 31, 1927	6	-80.6	20.4	7	40	TS			Neutral
Not Named	Aug 07, 1928	12	-79.1	26.0	1	85	SS2			Neutral
Not Named	Aug 10, 1928	0	-69.8	16.5	2	70	SS1			Neutral
Not Named	Sep 04, 1928	0	-83.3	18.8	3	50	TS			Neutral
Not Named	Sep 13, 1928	18	-65.8	17.9	4	140	SS5	931		Neutral
Not Named	Sep 11, 1928	0	-50.3	35.9	5	50	TS			Neutral
Not Named	Oct 13, 1928	18	-45.9	30.9	6	70	SS1			Neutral
Not Named	Jun 28, 1929	12	-94.8	27.0	1	75	SS1			El Nino
Not Named	Sep 26, 1929	18	-78.0	24.4	2	120	SS4			El Nino
Not Named	Oct 20, 1929	12	-47.9	27.6	3	80	SS1			El Nino
Not Named	Aug 26, 1930	6	-65.4	29.9	1	95	SS2			El Nino
Not Named	Sep 03, 1930	18	-70.0	18.4	2	130	SS4	933		El Nino
Not Named	Jun 25, 1931	12	-86.9	22.2	1	40	TS			Neutral
Not Named	Jul 14, 1931	12	-90.6	24.8	2	50	TS			Neutral
Not Named	Aug 12, 1931	18	-71.2	15.4	3	50	TS			Neutral
Not Named	Aug 16, 1931	6	-58.0	13.2	4	35	TS			Neutral
Not Named	Sep 10, 1931	18	-87.9	17.6	5	110	SS3			Neutral
Not Named	Sep 10, 1931	18	-63.9	18.2	6	85	SS2	988		Neutral
Not Named	Sep 25, 1931	6	-53.0	22.3	7	35	TS			Neutral
Not Named	Oct 19, 1931	0	-83.1	19.3	8	40	TS			Neutral
Not Named	Nov 24, 1931	6	-70.2	28.0	9	40	TS			Neutral
Not Named	May 09, 1932	0	-67.0	26.6	1	45	TS			Neutral
Not Named	Aug 14, 1932	0	-94.7	28.9	2	125	SS4	942		Neutral
Not Named	Aug 31, 1932	6	-84.5	27.7	3	70	SS1			Neutral
Not Named	Sep 05, 1932	18	-77.0	25.7	4	140	SS5			Neutral
Not Named	Sep 14, 1932	12	-89.2	27.8	5	45	TS			Neutral
Not Named	Sep 18, 1932	6	-94.5	21.6	6	35	TS			Neutral

Name	Date	Hour UTC	Longi-tude	Lati-tude	Yearly Storm #	Max Wind (kts)	SS Scale	Pres (mb)	Com-ment	ENSO
Not Named	Sep 26, 1932	12	-62.0	18.0	7	105	SS3			Neutral
Not Named	Oct 14, 1932	12	-95.3	23.0	8	45	TS			Neutral
Not Named	Oct 10, 1932	6	-62.5	29.3	9	45	TS			Neutral
Not Named	Nov 08, 1932	18	-80.8	18.3	10	115	SS4			Neutral
Not Named	Nov 08, 1932	18	-45.0	32.8	11	85	SS2			Neutral
Not Named	May 16, 1933	0	-84.6	19.7	1	40	TS			Neutral
Not Named	Jul 05, 1933	0	-88.7	25.6	2	90	SS2			Neutral
Not Named	Jul 16, 1933	12	-75.2	18.1	3	45	TS			Neutral
Not Named	Jul 22, 1933	6	-94.0	25.4	4	40	TS			Neutral
Not Named	Jul 27, 1933	18	-71.6	22.0	5	80	SS1			Neutral
Not Named	Aug 15, 1933	0	-71.5	14.8	6	50	TS			Neutral
Not Named	Aug 16, 1933	18	-58.0	11.0	7	35	TS			Neutral
Not Named	Aug 22, 1933	12	-71.1	33.1	8	105	SS3			Neutral
Not Named	Aug 28, 1933	0	-68.8	32.2	9	45	TS			Neutral
Not Named	Aug 26, 1933	18	-93.8	18.6	10	35	TS			Neutral
Not Named	Sep 03, 1933	12	-89.9	25.3	11	110	SS3			Neutral
Not Named	Sep 02, 1933	18	-72.4	23.6	12	120	SS4			Neutral
Not Named	Sep 15, 1933	6	-74.5	31.4	13	105	SS3			Neutral
Not Named	Sep 15, 1933	0	-94.4	22.1	14	75	SS1			Neutral
Not Named	Sep 24, 1933	12	-95.7	21.8	15	95	SS2			Neutral
Not Named	Sep 28, 1933	0	-63.3	17.7	16	40	TS			Neutral
Not Named	Sep 28, 1933	6	-82.1	11.7	17	35	TS			Neutral
Not Named	Oct 06, 1933	0	-76.1	27.2	18	130	SS4			Neutral
Not Named	Oct 29, 1933	12	-77.9	17.8	19	85	SS2			Neutral
Not Named	Oct 28, 1933	12	-68.8	37.1	20	60	TS			Neutral
Not Named	Nov 15, 1933	12	-79.8	11.9	21	35	TS			Neutral
Not Named	May 28, 1934	18	-79.8	29.8	1	50	TS			Neutral
Not Named	Jun 08, 1934	12	-87.8	17.7	2	70	SS1			Neutral
Not Named	Jul 25, 1934	12	-95.1	28.0	3	65	SS1			Neutral
Not Named	Aug 20, 1934	18	-57.0	14.8	4	35	TS			Neutral
Not Named	Aug 28, 1934	0	-94.9	29.0	5	70	SS1			Neutral
Not Named	Sep 07, 1934	0	-77.1	28.0	6	85	SS2			Neutral
Not Named	Sep 17, 1934	18	-61.2	17.0	7	40	TS			Neutral
Not Named	Oct 02, 1934	18	-43.5	28.9	8	85	SS2			Neutral
Not Named	Oct 04, 1934	0	-89.2	24.6	9	50	TS			Neutral
Not Named	Oct 20, 1934	6	-76.6	17.3	10	40	TS			Neutral
Not Named	Nov 25, 1934	0	-67.3	30.1	11	75	SS1			Neutral
Not Named	Aug 22, 1935	6	-69.0	28.5	1	105	SS3			Neutral
Not Named	Sep 03, 1935	0	-80.1	24.5	2	140	SS5	892		Neutral
Not Named	Aug 30, 1935	12	-87.5	22.0	3	40	TS			Neutral
Not Named	Sep 28, 1935	0	-79.7	19.9	4	105	SS3			Neutral
Not Named	Oct 21, 1935	0	-76.3	15.9	5	75	SS1			Neutral
Not Named	Nov 01, 1935	18	-72.6	33.5	6	70	SS1			Neutral
Not Named	Jun 13, 1936	0	-86.6	20.6	1	40	TS			Neutral
Not Named	Jun 19, 1936	6	-89.0	22.3	2	35	TS			Neutral
Not Named	Jun 27, 1936	6	-96.3	27.0	3	70	SS1			Neutral
Not Named	Jul 27, 1936	6	-89.7	27.0	4	40	TS			Neutral

Name	Date	Hour UTC	Longitude	Latitude	Yearly Storm #	Max Wind (kts)	SS Scale	Pres (mb)	Comment	ENSO
Not Named	Jul 31, 1936	6	-85.9	29.5	5	80	SS1			Neutral
Not Named	Aug 05, 1936	18	-66.4	23.1	6	40	TS			Neutral
Not Named	Aug 07, 1936	6	-85.5	25.6	7	35	TS			Neutral
Not Named	Aug 17, 1936	6	-92.9	24.8	8	70	SS1			Neutral
Not Named	Aug 21, 1936	12	-78.5	28.3	9	45	TS			Neutral
Not Named	Aug 29, 1936	18	-94.6	21.6	10	70	SS1			Neutral
Not Named	Sep 01, 1936	18	-57.6	27.4	11	95	SS2			Neutral
Not Named	Sep 07, 1936	6	-56.9	20.8	12	35	TS			Neutral
Not Named	Sep 15, 1936	18	-65.7	26.9	13	105	SS3			Neutral
Not Named	Sep 11, 1936	18	-94.6	20.1	14	40	TS			Neutral
Not Named	Sep 22, 1936	12	-70.2	28.7	15	95	SS2			Neutral
Not Named	Oct 09, 1936	18	-91.3	19.3	16	35	TS			Neutral
Not Named	Jul 31, 1937	18	-74.4	36.0	1	60	TS			Neutral
Not Named	Aug 06, 1937	6	-74.7	34.5	2	50	TS			Neutral
Not Named	Aug 30, 1937	0	-79.3	28.0	3	50	TS			Neutral
Not Named	Sep 12, 1937	6	-59.0	26.7	4	85	SS2			Neutral
Not Named	Sep 16, 1937	12	-54.0	22.3	5	95	SS2			Neutral
Not Named	Sep 17, 1937	6	-92.6	24.1	6	40	TS			Neutral
Not Named	Sep 23, 1937	6	-53.6	24.7	7	85	SS2			Neutral
Not Named	Sep 28, 1937	0	-75.2	31.8	8	40	TS			Neutral
Not Named	Sep 29, 1937	6	-85.5	17.3	9	35	TS			Neutral
Not Named	Aug 08, 1938	6	-62.3	17.4	1	60	TS			La Nina
Not Named	Aug 13, 1938	0	-85.0	20.0	2	85	SS2			La Nina
Not Named	Aug 24, 1938	18	-81.7	17.6	3	85	SS2			La Nina
Not Named	Sep 19, 1938	18	-71.6	24.1	4	140	SS5			La Nina
Not Named	Oct 14, 1938	6	-86.1	25.1	5	50	TS			La Nina
Not Named	Oct 19, 1938	0	-71.0	27.8	6	40	TS			La Nina
Not Named	Oct 24, 1938	0	-87.6	27.4	7	40	TS			La Nina
Not Named	Nov 07, 1938	18	-74.7	21.9	8	60	TS			La Nina
Not Named	Jun 14, 1939	12	-87.0	27.5	1	45	TS			Neutral
Not Named	Aug 11, 1939	18	-80.0	27.2	2	70	SS1			Neutral
Not Named	Sep 25, 1939	6	-90.9	24.7	3	40	TS			Neutral
Not Named	Oct 16, 1939	18	-64.2	32.5	4	115	SS4			Neutral
Not Named	Nov 01, 1939	0	-80.8	19.2	5	80	SS1			Neutral
Not Named	May 21, 1940	12	-72.4	28.9	1	50	TS			El Nino
Not Named	Aug 06, 1940	12	-90.8	28.2	2	70	SS1			El Nino
Not Named	Aug 09, 1940	18	-75.0	28.8	3	80	SS1			El Nino
Not Named	Aug 31, 1940	6	-73.5	31.6	4	70	SS1			El Nino
Not Named	Sep 13, 1940	12	-70.6	23.3	5	85	SS2			El Nino
Not Named	Sep 19, 1940	12	-83.4	13.2	6	40	TS			El Nino
Not Named	Oct 21, 1940	18	-79.8	12.2	7	45	TS			El Nino
Not Named	Oct 25, 1940	6	-72.1	23.5	8	40	TS			El Nino
Not Named	Sep 13, 1941	0	-90.4	27.9	1	40	TS	1003		Neutral
Not Named	Sep 20, 1941	0	-88.0	24.9	2	80	SS1			Neutral
Not Named	Sep 19, 1941	12	-75.6	29.3	3	70	SS1			Neutral
Not Named	Sep 27, 1941	12	-80.4	14.1	4	105	SS3			Neutral
Not Named	Oct 06, 1941	12	-80.8	25.6	5	105	SS3			Neutral

Name	Date	Hour UTC	Longi-tude	Lati-tude	Yearly Storm #	Max Wind (kts)	SS Scale	Pres (mb)	Com-ment	ENSO
Not Named	Oct 19, 1941	6	-84.3	26.8	6	45	TS			Neutral
Not Named	Aug 19, 1942	18	-90.8	28.0	1	70	SS1			La Nina
Not Named	Aug 29, 1942	6	-91.7	24.5	2	100	SS3			La Nina
Not Named	Aug 26, 1942	6	-63.1	32.3	3	95	SS2			La Nina
Not Named	Sep 17, 1942	6	-68.4	15.7	4	45	TS			La Nina
Not Named	Sep 19, 1942	18	-66.4	32.1	5	45	TS			La Nina
Not Named	Sep 28, 1942	18	-68.2	31.4	6	45	TS			La Nina
Not Named	Oct 03, 1942	6	-61.9	32.7	7	50	TS			La Nina
Not Named	Oct 10, 1942	6	-70.5	29.2	8	35	TS			La Nina
Not Named	Oct 14, 1942	12	-76.3	24.2	9	45	TS			La Nina
Not Named	Nov 08, 1942	18	-86.6	17.9	10	85	SS2			La Nina
Not Named	Jul 27, 1943	0	-92.9	28.8	1	75	SS1			Neutral
Not Named	Aug 16, 1943	0	-71.3	24.5	2	50	TS			Neutral
Not Named	Aug 24, 1943	6	-66.8	28.3	3	120	SS4			Neutral
Not Named	Sep 04, 1943	6	-60.9	32.5	4	105	SS3			Neutral
Not Named	Sep 13, 1943	18	-73.6	30.1	5	45	TS			Neutral
Not Named	Sep 17, 1943	6	-95.4	27.3	6	85	SS2			Neutral
Not Named	Sep 29, 1943	18	-70.1	35.2	7	50	TS			Neutral
Not Named	Oct 01, 1943	6	-58.3	26.3	8	60	TS			Neutral
Not Named	Oct 16, 1943	6	-68.8	26.7	9	95	SS2			Neutral
Not Named	Oct 21, 1943	6	-81.6	16.4	10	40	TS			Neutral
Not Named	Jul 17, 1944	0	-74.8	32.1	1	80	SS1			La Nina
Not Named	Jul 25, 1944	6	-64.3	14.1	2	55	TS			La Nina
Not Named	Aug 01, 1944	12	-78.1	31.0	3	80	SS1			La Nina
Not Named	Aug 19, 1944	18	-72.2	16.6	4	105	SS3			La Nina
Not Named	Aug 21, 1944	0	-91.4	23.1	5	50	TS			La Nina
Not Named	Sep 09, 1944	12	-94.2	25.4	6	45	TS			La Nina
Not Named	Sep 12, 1944	18	-72.3	26.3	7	120	SS4			La Nina
Not Named	Sep 19, 1944	18	-84.9	20.6	8	70	SS1			La Nina
Not Named	Sep 25, 1944	12	-53.2	38.0	9	85	SS2			La Nina
Not Named	Oct 01, 1944	6	-57.0	15.0	10	40	TS			La Nina
Not Named	Oct 18, 1944	0	-82.9	21.9	11	105	SS3			La Nina
Not Named	Jun 23, 1945	18	-85.6	27.6	1	100	SS3			Neutral
Not Named	Jul 20, 1945	0	-92.8	27.0	2	45	TS			Neutral
Not Named	Aug 03, 1945	6	-63.3	16.1	3	50	TS			Neutral
Not Named	Aug 18, 1945	18	-59.6	18.5	4	60	TS			Neutral
Not Named	Aug 27, 1945	18	-96.1	28.6	5	120	SS4	966		Neutral
Not Named	Aug 30, 1945	12	-82.2	17.2	6	50	TS			Neutral
Not Named	Sep 03, 1945	18	-84.0	20.0	7	35	TS			Neutral
Not Named	Sep 10, 1945	12	-61.6	20.4	8	50	TS			Neutral
Not Named	Sep 15, 1945	18	-79.6	24.9	9	120	SS4			Neutral
Not Named	Oct 03, 1945	18	-85.6	16.5	10	85	SS2	982		Neutral
Not Named	Oct 12, 1945	12	-79.3	21.6	11	85	SS2	1000		Neutral
Not Named	Jun 13, 1946	18	-85.5	27.0	1	35	TS			Neutral
Not Named	Jul 07, 1946	18	-70.8	36.7	2	70	SS1			Neutral
Not Named	Aug 25, 1946	0	-93.2	20.5	3	35	TS			Neutral
Not Named	Sep 13, 1946	12	-75.0	28.4	4	85	SS2			Neutral

Name	Date	Hour UTC	Longi-tude	Lati-tude	Yearly Storm #	Max Wind (kts)	SS Scale	Pres (mb)	Com-ment	ENSO
Not Named	Oct 07, 1946	18	-83.2	25.4	5	115	SS4	979		Neutral
Not Named	Nov 01, 1946	0	-75.0	23.0	6	40	TS			Neutral
Not Named	Aug 02, 1947	0	-97.3	25.6	1	40	TS			Neutral
Not Named	Aug 15, 1947	0	-96.4	22.0	2	95	SS2			Neutral
Not Named	Aug 22, 1947	18	-91.2	26.9	3	70	SS1			Neutral
Not Named	Sep 16, 1947	6	-75.4	26.5	4	140	SS5			Neutral
Not Named	Sep 07, 1947	18	-85.0	27.9	5	40	TS			Neutral
Not Named	Sep 23, 1947	6	-83.4	26.7	6	50	TS			Neutral
Not Named	Oct 06, 1947	6	-77.0	22.0	7	45	TS			Neutral
Not Named	Oct 12, 1947	6	-80.6	25.8	8	75	SS1			Neutral
Not Named	Oct 20, 1947	6	-66.9	31.4	9	105	SS3			Neutral
Not Named	May 25, 1948	0	-68.1	28.3	1	45	TS			Neutral
Not Named	Jul 07, 1948	18	-90.6	26.3	2	35	TS			Neutral
Not Named	Aug 28, 1948	18	-70.4	27.6	3	105	SS3			Neutral
Not Named	Aug 31, 1948	0	-53.0	13.5	4	50	TS	1009		Neutral
Not Named	Sep 03, 1948	18	-91.9	26.6	5	70	SS1			Neutral
Not Named	Sep 13, 1948	0	-64.6	28.7	6	115	SS4			Neutral
Not Named	Sep 21, 1948	12	-81.7	24.3	7	105	SS3			Neutral
Not Named	Oct 05, 1948	12	-82.5	23.3	8	115	SS4			Neutral
Not Named	Nov 09, 1948	12	-70.8	26.3	9	70	SS1			Neutral
Not Named	Aug 24, 1949	0	-76.2	30.9	1	95	SS2			La Nina
Not Named	Aug 26, 1949	18	-79.0	26.1	2	130	SS4			La Nina
Not Named	Aug 31, 1949	6	-57.7	12.4	3	45	TS			La Nina
Not Named	Sep 08, 1949	12	-63.5	31.7	4	110	SS3			La Nina
Not Named	Sep 03, 1949	6	-89.0	23.7	5	40	TS			La Nina
Not Named	Sep 06, 1949	0	-43.0	30.2	6	40	TS			La Nina
Not Named	Sep 15, 1949	6	-31.7	23.7	7	50	TS			La Nina
Not Named	Sep 24, 1949	12	-95.9	21.9	8	85	SS2			La Nina
Not Named	Sep 21, 1949	18	-66.6	16.9	9	70	SS1			La Nina
Not Named	Oct 04, 1949	6	-95.4	29.1	10	115	SS4			La Nina
Not Named	Oct 16, 1949	6	-68.3	32.4	11	90	SS2			La Nina
Not Named	Oct 15, 1949	0	-53.9	26.3	12	50	TS			La Nina
Not Named	Nov 03, 1949	6	-82.0	17.8	13	50	TS			La Nina
Able	Aug 18, 1950	0	-73.8	26.1	1	120	SS4			Neutral
Baker	Aug 21, 1950	12	-60.0	16.7	2	105	SS3			Neutral
Charlie	Aug 29, 1950	12	-58.0	29.2	3	100	SS3			Neutral
Dog	Sep 06, 1950	6	-68.4	26.7	4	160	SS5			Neutral
Easy	Sep 04, 1950	12	-83.2	27.4	5	110	SS3			Neutral
Fox	Sep 14, 1950	18	-59.4	24.6	6	120	SS4			Neutral
George	Oct 03, 1950	18	-68.0	33.0	7	95	SS2			Neutral
How	Oct 02, 1950	6	-90.1	26.3	8	50	TS			Neutral
Item	Oct 10, 1950	12	-95.3	19.9	9	95	SS2			Neutral
Jig	Oct 15, 1950	18	-58.2	34.2	10	105	SS3			Neutral
King	Oct 17, 1950	6	-78.6	21.9	11	105	SS3	955		Neutral
Not Named	Oct 21, 1950	0	-37.6	32.0	12	60	TS			Neutral
Love	Oct 19, 1950	12	-92.2	26.1	13	80	SS1			Neutral
Able	May 21, 1951	6	-74.7	34.4	1	100	SS3			El Nino

Name	Date	Hour UTC	Longi-tude	Lati-tude	Yearly Storm #	Max Wind (kts)	SS Scale	Pres (mb)	Com-ment	ENSO
Baker	Aug 03, 1951	6	-57.5	24.9	2	50	TS			El Nino
Charlie	Aug 20, 1951	0	-87.2	20.2	3	115	SS4			El Nino
Dog	Sep 02, 1951	18	-62.8	14.2	4	100	SS3			El Nino
Easy	Sep 07, 1951	12	-66.0	24.0	5	140	SS5			El Nino
Fox	Sep 07, 1951	12	-50.7	21.7	6	100	SS3			El Nino
George	Sep 20, 1951	18	-95.2	20.8	7	50	TS			El Nino
How	Oct 04, 1951	6	-75.2	33.9	8	95	SS2			El Nino
Item	Oct 14, 1951	6	-81.8	19.1	9	70	SS1			El Nino
Jig	Oct 15, 1951	18	-74.8	30.6	10	70	SS1			El Nino
Not Named	Feb 04, 1952	6	-73.7	35.7	1	50	TS		E	Neutral
Able	Aug 31, 1952	0	-80.5	31.8	2	90	SS2			Neutral
Baker	Sep 03, 1952	18	-68.4	26.8	3	105	SS3			Neutral
Charlie	Sep 26, 1952	6	-74.8	28.2	4	105	SS3			Neutral
Dog	Sep 27, 1952	0	-54.6	17.0	5	75	SS1			Neutral
Easy	Oct 09, 1952	0	-50.5	18.7	6	95	SS2			Neutral
Fox	Oct 24, 1952	18	-81.0	21.8	7	130	SS4	934		Neutral
Alice	Jun 05, 1953	0	-84.8	25.9	1	60	TS			Neutral
Barbara	Aug 13, 1953	18	-76.3	33.6	2	95	SS2			Neutral
Not Named	Aug 31, 1953	12	-78.4	29.7	3	50	TS			Neutral
Carol	Sep 03, 1953	12	-58.7	18.9	4	130	SS4			Neutral
Dolly	Sep 10, 1953	6	-70.3	22.8	5	100	SS3			Neutral
Edna	Sep 16, 1953	12	-71.1	24.8	6	110	SS3			Neutral
Not Named	Sep 15, 1953	6	-92.1	22.8	7	60	TS			Neutral
Florence	Sep 25, 1953	6	-87.0	23.4	8	110	SS3			Neutral
Gail	Oct 03, 1953	18	-44.2	14.6	9	70	SS1			Neutral
Not Named	Oct 07, 1953	6	-66.5	38.8	10	60	TS		E	Neutral
Not Named	Oct 05, 1953	18	-41.2	19.6	11	60	TS			Neutral
Hazel	Oct 09, 1953	6	-84.4	25.0	12	60	TS			Neutral
Not Named	Nov 24, 1953	12	-52.0	27.5	13	45	TS			Neutral
Not Named	Dec 08, 1953	0	-53.1	20.8	14	35	TS			Neutral
Alice	Jun 25, 1954	6	-96.5	24.4	1	70	SS1			La Nina
Barbara	Jul 28, 1954	18	-91.4	28.3	2	40	TS			La Nina
Carol	Aug 27, 1954	18	-76.6	29.8	3	85	SS2			La Nina
Dolly	Sep 01, 1954	12	-70.2	29.0	4	85	SS2			La Nina
Edna	Sep 08, 1954	18	-75.6	26.6	5	105	SS3			La Nina
Florence	Sep 12, 1954	0	-95.9	20.8	6	65	SS1			La Nina
Gilda	Sep 26, 1954	6	-83.5	15.9	7	60	TS			La Nina
Not Named	Oct 05, 1954	6	-49.1	35.2	8	85	SS2			La Nina
Hazel	Oct 15, 1954	6	-77.8	30.2	9	120	SS4			La Nina
Not Named	Nov 17, 1954	12	-45.5	23.9	10	45	TS			La Nina
Alice	Jan 03, 1955	0	-63.2	17.6	11	70	SS1			La Nina
Brenda	Aug 01, 1955	6	-88.8	28.8	1	60	TS			La Nina
Connie	Aug 06, 1955	12	-61.9	19.6	2	125	SS4	982		La Nina
Diane	Aug 12, 1955	12	-60.8	25.3	3	105	SS3	975		La Nina
Edith	Aug 28, 1955	6	-64.1	27.7	4	85	SS2			La Nina
Not Named	Aug 26, 1955	12	-86.1	27.7	5	40	TS			La Nina
Flora	Sep 07, 1955	0	-55.4	32.4	6	90	SS2			La Nina

Name	Date	Hour UTC	Longitude	Latitude	Yearly Storm #	Max Wind (kts)	SS Scale	Pres (mb)	Comment	ENSO
Gladys	Sep 05, 1955	12	-96.7	23.6	7	80	SS1			La Nina
Hilda	Sep 18, 1955	18	-95.0	21.8	8	110	SS3			La Nina
Ione	Sep 18, 1955	6	-74.7	28.9	9	105	SS3			La Nina
Janet	Sep 28, 1955	0	-86.1	18.0	10	150	SS5			La Nina
Not Named	Oct 11, 1955	6	-43.8	28.6	11	55	TS			La Nina
Katie	Oct 16, 1955	18	-72.9	16.1	12	100	SS3	984		La Nina
Not Named	Jun 13, 1956	6	-90.7	26.4	1	50	TS			La Nina
Anna	Jul 27, 1956	0	-98.4	21.9	2	70	SS1	1002		La Nina
Betsy	Aug 10, 1956	6	-53.0	14.1	3	105	SS3			La Nina
Carla	Sep 08, 1956	0	-74.3	27.3	4	45	TS			La Nina
Dora	Sep 11, 1956	12	-95.0	21.6	5	60	TS	1001		La Nina
Ethel	Sep 12, 1956	18	-73.6	26.4	6	60	TS			La Nina
Flossy	Sep 24, 1956	12	-88.7	29.5	7	80	SS1			La Nina
Greta	Nov 05, 1956	12	-61.0	25.3	8	120	SS4	970		La Nina
Not Named	Jun 10, 1957	6	-74.2	33.2	1	60	TS		E	El Nino
Audrey	Jun 27, 1957	12	-93.8	29.3	2	125	SS4	946		El Nino
Bertha	Aug 09, 1957	6	-90.4	27.9	3	60	TS			El Nino
Carrie	Sep 08, 1957	18	-45.7	18.0	4	135	SS4			El Nino
Debbie	Sep 07, 1957	6	-89.8	23.9	5	35	TS			El Nino
Esther	Sep 17, 1957	6	-92.7	24.5	6	45	TS			El Nino
Frieda	Sep 25, 1957	12	-65.2	36.4	7	70	SS1	992		El Nino
Not Named	Oct 24, 1957	18	-66.0	26.6	8	50	TS			El Nino
Alma	Jun 14, 1958	18	-95.6	22.5	1	45	TS			Neutral
Becky	Aug 12, 1958	12	-50.0	18.9	2	50	TS			Neutral
Cleo	Aug 16, 1958	0	-49.8	19.6	3	140	SS5	948		Neutral
Daisy	Aug 28, 1958	6	-74.6	31.5	4	110	SS3	938		Neutral
Ella	Sep 02, 1958	0	-76.3	20.0	5	100	SS3			Neutral
Fifi	Sep 06, 1958	18	-58.3	17.5	6	80	SS1			Neutral
Gerda	Sep 14, 1958	18	-70.6	17.9	7	60	TS	1004		Neutral
Helene	Sep 27, 1958	12	-78.2	33.1	8	115	SS4	938		Neutral
Ilsa	Sep 27, 1958	0	-61.2	21.4	9	115	SS4			Neutral
Janice	Oct 07, 1958	18	-74.7	28.7	10	80	SS1	990		Neutral
Arlene	May 30, 1959	12	-92.0	28.4	1	50	TS	1000		Neutral
Beulah	Jun 17, 1959	18	-97.1	23.2	2	60	TS	987		Neutral
Not Named	Jun 19, 1959	18	-62.1	41.2	3	70	SS1		E	Neutral
Cindy	Jul 08, 1959	12	-78.2	32.3	4	65	SS1			Neutral
Debra	Jul 25, 1959	6	-95.1	29.2	5	75	SS1			Neutral
Edith	Aug 18, 1959	12	-61.0	15.9	6	50	TS			Neutral
Flora	Sep 11, 1959	12	-41.3	28.7	7	65	SS1			Neutral
Gracie	Sep 29, 1959	6	-78.7	30.5	8	120	SS4			Neutral
Hannah	Oct 01, 1959	6	-67.1	29.6	9	110	SS3	959		Neutral
Irene	Oct 08, 1959	12	-87.6	30.2	10	50	TS	1001		Neutral
Judith	Oct 20, 1959	0	-62.9	30.9	11	70	SS1			Neutral
Not Named	Jun 23, 1960	18	-96.7	25.5	1	40	TS			Neutral
Abby	Jul 11, 1960	12	-66.0	14.8	2	85	SS2			Neutral
Brenda	Jul 30, 1960	0	-78.0	34.6	3	50	TS			Neutral
Cleo	Aug 20, 1960	0	-67.8	37.7	4	80	SS1			Neutral

Name	Date	Hour UTC	Longi- tude	Lati- tude	Yearly Storm #	Max Wind (kts)	SS Scale	Pres (mb)	Com- ment	ENSO
Donna	Sep 04, 1960	6	-58.0	16.4	5	140	SS5			Neutral
Ethel	Sep 15, 1960	6	-88.9	28.1	6	140	SS5			Neutral
Florence	Sep 18, 1960	18	-70.2	20.9	7	40	TS			Neutral
Anna	Jul 21, 1961	18	-73.3	13.7	1	100	SS3			Neutral
Betsy	Sep 05, 1961	18	-52.9	26.9	2	120	SS4	952		Neutral
Carla	Sep 11, 1961	6	-95.7	27.2	3	150	SS5	936		Neutral
Debbie	Sep 11, 1961	18	-45.9	29.3	4	105	SS3			Neutral
Esther	Sep 18, 1961	12	-68.6	27.0	5	125	SS4	938		Neutral
Not Named	Sep 14, 1961	12	-77.9	34.7	6	35	TS			Neutral
Frances	Oct 07, 1961	0	-66.3	32.9	7	110	SS3	948		Neutral
Gerda	Oct 20, 1961	18	-66.8	41.3	8	60	TS			Neutral
Hattie	Oct 30, 1961	18	-85.2	18.2	9	140	SS5			Neutral
Jenny	Nov 06, 1961	18	-52.3	28.3	10	70	SS1	974		Neutral
Inga	Nov 06, 1961	18	-94.7	20.2	11	60	TS			Neutral
Alma	Aug 29, 1962	6	-70.4	40.1	1	85	SS2			Neutral
Becky	Aug 28, 1962	18	-23.3	19.5	2	35	TS			Neutral
Celia	Sep 13, 1962	12	-52.6	17.5	3	60	TS	995		Neutral
Daisy	Oct 05, 1962	18	-69.6	28.0	4	95	SS2	969		Neutral
Ella	Oct 19, 1962	18	-73.6	31.3	5	100	SS3	962		Neutral
Arlene	Aug 02, 1963	18	-49.9	14.3	1	90	SS2	987		El Nino
Beulah	Aug 24, 1963	6	-59.6	23.1	2	105	SS3	958		El Nino
Not Named	Sep 12, 1963	12	-51.3	37.2	3	50	TS			El Nino
Cindy	Sep 17, 1963	0	-93.9	28.0	4	70	SS1	996		El Nino
Debra	Sep 21, 1963	18	-48.9	23.0	5	65	SS1	1000		El Nino
Edith	Sep 25, 1963	0	-59.6	13.7	6	85	SS2			El Nino
Flora	Oct 03, 1963	6	-71.4	15.9	7	125	SS4			El Nino
Ginny	Oct 29, 1963	0	-70.3	36.3	8	95	SS2			El Nino
Helena	Oct 26, 1963	6	-60.6	15.5	9	45	TS			El Nino
Not Named	Jun 09, 1964	6	-65.9	36.6	1	50	TS			La Nina
Not Named	Jul 31, 1964	18	-57.2	33.7	2	45	TS			La Nina
Abby	Aug 07, 1964	18	-95.2	28.6	3	55	TS	1000		La Nina
Brenda	Aug 08, 1964	12	-64.9	32.4	4	45	TS	1008		La Nina
Cleo	Aug 23, 1964	18	-68.0	16.7	5	135	SS4	950		La Nina
Dora	Sep 06, 1964	6	-64.4	26.1	6	115	SS4	942		La Nina
Ethel	Sep 09, 1964	18	-63.2	27.7	7	100	SS3			La Nina
Florence	Sep 08, 1964	6	-29.9	22.5	8	40	TS			La Nina
Gladys	Sep 17, 1964	18	-65.1	25.0	9	125	SS4	945		La Nina
Hilda	Oct 01, 1964	18	-91.1	24.8	10	130	SS4	941		La Nina
Isbell	Oct 14, 1964	12	-82.9	24.0	11	110	SS3	964		La Nina
Not Named	Nov 06, 1964	12	-81.4	13.9	12	35	TS			La Nina
Not Named	Jun 15, 1965	0	-89.1	27.8	1	45	TS			El Nino
Anna	Aug 24, 1965	18	-48.8	41.1	2	80	SS1			El Nino
Betsy	Sep 10, 1965	0	-89.2	28.3	3	135	SS4	941		El Nino
Carol	Sep 29, 1965	12	-35.4	38.7	4	85	SS2			El Nino
Debbie	Sep 28, 1965	18	-89.2	27.4	5	45	TS	1004		El Nino
Elena	Oct 17, 1965	12	-56.3	33.0	6	70	SS1	988		El Nino
Alma	Jun 08, 1966	18	-82.4	24.2	1	110	SS3	970		Neutral

Name	Date	Hour UTC	Longi-tude	Lati-tude	Yearly Storm #	Max Wind (kts)	SS Scale	Pres (mb)	Com-ment	ENSO
Becky	Jul 02, 1966	12	-54.4	37.6	2	65	SS1	985		Neutral
Celia	Jul 20, 1966	18	-67.9	33.6	3	70	SS1			Neutral
Dorothy	Jul 28, 1966	0	-40.1	39.2	4	75	SS1			Neutral
Ella	Jul 25, 1966	6	-54.6	17.5	5	45	TS			Neutral
Faith	Aug 28, 1966	12	-70.7	23.3	6	110	SS3	962		Neutral
Greta	Sep 04, 1966	18	-59.0	19.8	7	50	TS			Neutral
Hallie	Sep 21, 1966	0	-95.4	21.5	8	45	TS	997		Neutral
Inez	Sep 28, 1966	18	-67.1	17.0	9	130	SS4	932		Neutral
Judith	Sep 29, 1966	12	-58.0	13.4	10	45	TS			Neutral
Lois	Nov 08, 1966	0	-49.8	24.8	11	70	SS1	986		Neutral
Arlene	Sep 03, 1967	18	-52.0	43.3	1	75	SS1			La Nina
Beulah	Sep 20, 1967	0	-96.2	24.2	2	140	SS5	923		La Nina
Chloe	Sep 13, 1967	0	-50.9	27.9	3	95	SS2			La Nina
Doria	Sep 13, 1967	18	-64.9	37.1	4	75	SS1	983		La Nina
Edith	Sep 29, 1967	0	-57.0	14.6	5	50	TS			La Nina
Fern	Oct 03, 1967	0	-93.7	22.6	6	75	SS1	987		La Nina
Ginger	Oct 06, 1967	18	-18.9	19.5	7	45	TS	1002		La Nina
Heidi	Oct 26, 1967	0	-46.9	35.3	8	80	SS1			La Nina
Abby	Jun 03, 1968	12	-83.6	24.5	1	65	SS1	999		Neutral
Brenda	Jun 23, 1968	12	-68.4	34.7	2	65	SS1	992		Neutral
Candy	Jun 24, 1968	0	-97.2	28.3	3	60	TS	999		Neutral
Dolly	Aug 14, 1968	12	-51.3	39.8	4	70	SS1	992		Neutral
Edna	Sep 15, 1968	6	-35.8	16.0	5	55	TS			Neutral
Subtrop 1	Sep 20, 1968	18	-46.5	37.6	6	70	SS1		S	Neutral
Frances	Sep 27, 1968	12	-66.2	34.2	7	50	TS			Neutral
Gladys	Oct 19, 1968	18	-79.7	31.3	8	75	SS1	966		Neutral
Anna	Jul 29, 1969	18	-46.0	14.2	1	60	TS	1003		El Nino
Blanche	Aug 11, 1969	18	-69.9	35.5	2	75	SS1	997		El Nino
Camille	Aug 17, 1969	18	-88.7	28.3	3	165	SS5			El Nino
Debbie	Aug 20, 1969	12	-63.3	25.1	4	105	SS3	953		El Nino
Eve	Aug 26, 1969	0	-75.1	30.0	5	50	TS	999		El Nino
Francelia	Sep 02, 1969	18	-86.7	16.4	6	100	SS3	973		El Nino
Gerda	Sep 09, 1969	12	-72.2	37.8	7	110	SS3	984		El Nino
Holly	Sep 15, 1969	18	-49.5	14.5	8	75	SS1	992		El Nino
Inga	Oct 05, 1969	18	-59.5	31.9	9	100	SS3			El Nino
Not Named	Sep 24, 1969	12	-66.0	37.0	10	65	SS1	987		El Nino
Not Named	Sep 27, 1969	6	-38.7	37.0	11	60	TS			El Nino
Subtrop 1	Sep 30, 1969	0	-86.0	24.5	12	50	TS	1001	S	El Nino
Jenny	Oct 02, 1969	18	-82.1	25.5	13	40	TS	1000		El Nino
Kara	Oct 18, 1969	0	-50.8	43.3	14	90	SS2			El Nino
Laurie	Oct 21, 1969	12	-89.6	26.3	15	90	SS2	973		El Nino
Not Named	Oct 30, 1969	6	-46.8	35.3	16	60	TS			El Nino
Not Named	Nov 04, 1969	12	-38.0	28.0	17	65	SS1	992		El Nino
Martha	Nov 22, 1969	12	-81.0	10.3	18	80	SS1	979		El Nino
Alma	May 20, 1970	18	-81.6	17.2	1	70	SS1	993		La Nina
Becky	Jul 21, 1970	6	-86.7	25.8	2	55	TS	1004		La Nina
Celia	Aug 03, 1970	18	-96.3	27.5	3	110	SS3	945		La Nina

Name	Date	Hour UTC	Longi-tude	Lati-tude	Yearly Storm #	Max Wind (kts)	SS Scale	Pres (mb)	Com-ment	ENSO
Not Named	Aug 18, 1970	18	-58.5	42.5	4	60	TS	992		La Nina
Dorothy	Aug 20, 1970	12	-59.5	13.9	5	60	TS	998		La Nina
Ella	Sep 12, 1970	12	-97.9	23.9	6	110	SS3	967		La Nina
Felice	Sep 16, 1970	0	-94.1	29.4	7	60	TS	997		La Nina
Greta	Sep 27, 1970	0	-77.2	23.3	8	45	TS	1005		La Nina
Not Named	Oct 17, 1970	12	-61.0	39.0	9	90	SS2	974		La Nina
Not Named	Oct 27, 1970	0	-36.5	37.0	10	65	SS1			La Nina
Arlene	Jul 06, 1971	18	-65.9	40.7	1	55	TS	1000		La Nina
Not Named	Aug 06, 1971	12	-49.0	46.0	2	75	SS1	974		La Nina
Beth	Aug 15, 1971	12	-67.2	39.7	3	75	SS1	977		La Nina
Chloe	Aug 20, 1971	18	-67.7	15.4	4	55	TS			La Nina
Doria	Aug 27, 1971	18	-76.8	34.8	5	55	TS	989		La Nina
Edith	Sep 09, 1971	18	-83.2	14.8	6	140	SS5	943		La Nina
Fern	Sep 09, 1971	6	-94.0	26.7	7	80	SS1	993		La Nina
Ginger	Sep 14, 1971	0	-53.3	33.3	8	95	SS2			La Nina
Heidi	Sep 14, 1971	0	-69.9	37.1	9	55	TS			La Nina
Irene	Sep 18, 1971	18	-82.3	11.4	10	70	SS1	993		La Nina
Janice	Sep 22, 1971	18	-48.5	13.1	11	55	TS	1005		La Nina
Kristy	Oct 20, 1971	12	-47.1	35.4	12	45	TS	997		La Nina
Laura	Nov 15, 1971	18	-84.1	20.4	13	60	TS			La Nina
Alpha	May 26, 1972	12	-75.7	31.6	1	60	TS	1001	S	El Nino
Agnes	Jun 19, 1972	0	-85.7	26.0	2	75	SS1	982		El Nino
Betty	Aug 28, 1972	0	-42.6	40.5	3	90	SS2	976		El Nino
Carrie	Sep 03, 1972	18	-70.2	40.6	4	60	TS	993		El Nino
Dawn	Sep 08, 1972	0	-70.8	35.2	5	70	SS1	998		El Nino
Charlie	Sep 21, 1972	6	-40.0	46.0	6	60	TS	992	E	El Nino
Delta	Nov 02, 1972	12	-48.6	34.2	7	40	TS	1003	S	El Nino
Alice	Jul 04, 1973	12	-65.1	33.1	1	80	SS1	990		La Nina
Alfa	Jul 31, 1973	12	-70.8	37.5	2	40	TS		S	La Nina
Brenda	Aug 21, 1973	6	-92.1	19.0	3	80	SS1			La Nina
Christine	Sep 02, 1973	6	-55.5	14.9	4	60	TS	996		La Nina
Delia	Sep 03, 1973	12	-89.9	25.9	5	60	TS	997		La Nina
Ellen	Sep 22, 1973	12	-45.2	42.1	6	100	SS3			La Nina
Fran	Oct 11, 1973	6	-38.3	36.8	7	70	SS1			La Nina
Gilda	Oct 18, 1973	18	-79.3	21.3	8	60	TS			La Nina
Subtrop 1	Jun 25, 1974	12	-81.5	28.8	1	55	TS	1000	S	Neutral
Subtrop 2	Jul 18, 1974	12	-58.4	39.0	2	45	TS	1006	S	Neutral
Subtrop 3	Aug 14, 1974	12	-64.0	41.5	3	50	TS	992	S	Neutral
Alma	Aug 13, 1974	18	-54.0	10.0	4	55	TS	1007		Neutral
Becky	Aug 30, 1974	6	-61.8	37.3	5	100	SS3			Neutral
Carmen	Sep 02, 1974	6	-86.8	18.4	6	130	SS4	928		Neutral
Dolly	Sep 03, 1974	18	-72.0	30.2	7	45	TS	1005		Neutral
Elaine	Sep 10, 1974	12	-69.3	34.8	8	60	TS	1001		Neutral
Fifi	Sep 18, 1974	18	-84.7	16.3	9	95	SS2			Neutral
Gertrude	Sep 29, 1974	0	-53.0	11.0	10	65	SS1	999		Neutral
Subtrop 4	Oct 07, 1974	0	-79.8	26.8	11	45	TS		S	Neutral
Amy	Jun 30, 1975	12	-70.5	35.9	1	60	TS	987		La Nina

Name	Date	Hour UTC	Longi-tude	Lati-tude	Yearly Storm #	Max Wind (kts)	SS Scale	Pres (mb)	Com-ment	ENSO
Blanche	Jul 27, 1975	18	-68.0	37.9	2	75	SS1	981		La Nina
Caroline	Aug 31, 1975	0	-97.0	24.0	3	100	SS3	973		La Nina
Doris	Sep 02, 1975	6	-44.5	36.4	4	95	SS2	965		La Nina
Eloise	Sep 23, 1975	12	-86.3	30.2	5	110	SS3	955		La Nina
Faye	Sep 27, 1975	0	-64.2	32.7	6	90	SS2	985		La Nina
Gladys	Oct 02, 1975	12	-69.8	35.3	7	120	SS4	939		La Nina
Hallie	Oct 27, 1975	0	-77.5	33.5	8	45	TS	1002		La Nina
Subtrop 2	Dec 10, 1975	12	-43.4	38.3	9	60	TS	992	S	La Nina
Subtrop 1	May 24, 1976	12	-78.0	32.8	1	45	TS	996	S	El Nino
Anna	Aug 02, 1976	12	-20.5	42.1	2	45	TS		E	El Nino
Belle	Aug 09, 1976	0	-75.3	30.9	3	105	SS3	957		El Nino
Candice	Aug 22, 1976	18	-56.4	41.3	4	80	SS1	964		El Nino
Dottie	Aug 20, 1976	6	-80.0	29.6	5	45	TS	996		El Nino
Emmy	Aug 29, 1976	12	-56.8	35.0	6	90	SS2	974		El Nino
Frances	Sep 01, 1976	6	-54.3	26.3	7	100	SS3	963		El Nino
Subtrop 3	Sep 15, 1976	0	-80.8	32.2	8	40	TS	1011	S	El Nino
Gloria	Sep 30, 1976	12	-58.8	33.1	9	90	SS2	977		El Nino
Holly	Oct 24, 1976	12	-58.1	24.9	10	65	SS1	990		El Nino
Anita	Sep 02, 1977	6	-97.1	24.2	1	150	SS5	926		Neutral
Babe	Sep 05, 1977	6	-91.4	28.7	2	65	SS1	995		Neutral
Clara	Sep 08, 1977	12	-67.7	35.5	3	65	SS1	993		Neutral
Dorothy	Sep 29, 1977	0	-57.0	38.3	4	75	SS1	980		Neutral
Evelyn	Oct 15, 1977	6	-61.5	42.4	5	70	SS1	996		Neutral
Frieda	Oct 18, 1977	0	-85.0	17.3	6	50	TS	1006		Neutral
Subtrop 1	Jan 20, 1978	12	-52.0	23.3	1	40	TS	1002	S	Neutral
Amelia	Jul 31, 1978	0	-97.4	26.4	2	45	TS	1005		Neutral
Bess	Aug 07, 1978	18	-96.6	21.6	3	45	TS	1006		Neutral
Cora	Aug 09, 1978	0	-44.9	14.0	4	80	SS1	980		Neutral
Debra	Aug 29, 1978	0	-93.6	29.6	5	50	TS	1000		Neutral
Ella	Sep 04, 1978	12	-63.0	40.0	6	120	SS4	956		Neutral
Flossie	Sep 13, 1978	0	-42.9	31.8	7	85	SS2	976		Neutral
Greta	Sep 18, 1978	6	-84.3	15.8	8	115	SS4	947		Neutral
Hope	Sep 18, 1978	18	-43.0	39.1	9	55	TS	990		Neutral
Irma	Oct 04, 1978	18	-31.4	35.8	10	45	TS	1002		Neutral
Juliet	Oct 09, 1978	0	-60.9	19.3	11	45	TS	1006		Neutral
Kendra	Oct 30, 1978	12	-72.6	28.9	12	70	SS1	990		Neutral
Ana	Jun 22, 1979	12	-56.9	14.2	1	50	TS	1006		Neutral
Bob	Jul 11, 1979	0	-91.6	26.2	2	65	SS1	988		Neutral
Claudette	Jul 24, 1979	12	-93.7	28.8	3	45	TS	1002		Neutral
David	Aug 30, 1979	18	-66.2	16.6	4	150	SS5	924		Neutral
Elena	Aug 30, 1979	18	-91.8	26.8	5	35	TS	1006		Neutral
Frederic	Sep 12, 1979	12	-87.0	27.4	6	115	SS4	943		Neutral
Gloria	Sep 12, 1979	18	-47.8	33.2	7	85	SS2	975		Neutral
Henri	Sep 17, 1979	12	-94.3	20.4	8	75	SS1	983		Neutral
Subtrop 1	Oct 24, 1979	18	-62.0	40.5	9	65	SS1	985	S	Neutral
Allen	Aug 07, 1980	18	-86.4	21.8	1	165	SS5	899		Neutral
Bonnie	Aug 16, 1980	6	-38.9	23.7	2	85	SS2	975		Neutral

Name	Date	Hour UTC	Longi-tude	Lati-tude	Yearly Storm #	Max Wind (kts)	SS Scale	Pres (mb)	Com-ment	ENSO
Charley	Aug 23, 1980	6	-66.7	38.9	3	70	SS1	990		Neutral
Danielle	Sep 05, 1980	18	-93.4	29.4	4	50	TS	1004		Neutral
Earl	Sep 08, 1980	6	-42.5	30.4	5	65	SS1	988		Neutral
Frances	Sep 09, 1980	0	-29.8	12.8	6	100	SS3	960		Neutral
Georges	Sep 08, 1980	0	-59.0	40.2	7	70	SS1	993		Neutral
Hermine	Sep 22, 1980	12	-87.8	17.8	8	60	TS	994		Neutral
Ivan	Oct 06, 1980	18	-31.1	28.1	9	90	SS2	970		Neutral
Jeanne	Nov 12, 1980	0	-87.4	24.1	10	85	SS2	988		Neutral
Karl	Nov 26, 1980	6	-44.2	37.0	11	75	SS1	985		Neutral
Arlene	May 08, 1981	18	-74.5	23.0	1	50	TS	1004		Neutral
Bret	Jun 30, 1981	6	-71.0	36.0	2	60	TS	999		Neutral
Cindy	Aug 04, 1981	0	-63.8	39.0	3	50	TS	1002		Neutral
Dennis	Aug 21, 1981	0	-70.4	37.1	4	70	SS1	995		Neutral
Emily	Sep 05, 1981	18	-59.9	39.4	5	80	SS1	966		Neutral
Floyd	Sep 07, 1981	0	-69.1	26.4	6	100	SS3	981		Neutral
Gert	Sep 11, 1981	12	-72.0	29.0	7	90	SS2	988		Neutral
Harvey	Sep 15, 1981	0	-62.6	28.4	8	115	SS4	946		Neutral
Irene	Sep 28, 1981	6	-56.8	25.8	9	105	SS3	966		Neutral
Jose	Oct 31, 1981	12	-42.2	31.5	10	45	TS	998		Neutral
Katrina	Nov 05, 1981	12	-80.5	20.0	11	75	SS1	980		Neutral
Subtrop 3	Nov 14, 1981	0	-70.6	33.7	12	60	TS	993	S	Neutral
Alberto	Jun 03, 1982	18	-83.6	24.0	1	75	SS1	985		El Nino
Subtrop 1	Jun 18, 1982	18	-80.3	31.4	2	60	TS	992	S	El Nino
Beryl	Sep 01, 1982	0	-40.0	18.3	3	63	TS	989		El Nino
Chris	Sep 11, 1982	12	-93.8	29.8	4	55	TS	994		El Nino
Debby	Sep 18, 1982	0	-62.3	38.8	5	115	SS4	950		El Nino
Ernesto	Oct 02, 1982	0	-66.2	28.5	6	60	TS	997		El Nino
Alicia	Aug 18, 1983	6	-95.0	28.9	1	100	SS3	963		Neutral
Barry	Aug 28, 1983	18	-97.5	25.4	2	70	SS1	986		Neutral
Chantal	Sep 11, 1983	18	-60.0	32.8	3	65	SS1	994		Neutral
Dean	Sep 29, 1983	0	-70.8	34.5	4	55	TS	1003		Neutral
Subtrop 1	Aug 20, 1984	12	-48.3	43.7	1	50	TS	1001	S	Neutral
Arthur	Aug 29, 1984	18	-55.8	11.8	2	45	TS	1004		Neutral
Bertha	Aug 31, 1984	12	-45.3	14.9	3	35	TS	1007		Neutral
Cesar	Sep 02, 1984	12	-50.4	46.0	4	50	TS	994		Neutral
Diana	Sep 12, 1984	0	-77.7	33.9	5	115	SS4	949		Neutral
Edouard	Sep 15, 1984	0	-95.8	20.3	6	55	TS	998		Neutral
Fran	Sep 17, 1984	18	-27.1	18.4	7	55	TS	995		Neutral
Gustav	Sep 18, 1984	18	-64.7	32.1	8	45	TS	1006		Neutral
Hortense	Sep 25, 1984	18	-60.8	29.7	9	65	SS1	996		Neutral
Isidore	Sep 27, 1984	6	-79.1	25.8	10	50	TS	1000		Neutral
Josephine	Oct 12, 1984	0	-71.7	31.4	11	90	SS2	970		Neutral
Klaus	Nov 08, 1984	18	-61.4	19.9	12	80	SS1	984		Neutral
Lili	Dec 20, 1984	12	-52.4	31.1	13	70	SS1	980		Neutral
Ana	Jul 19, 1985	0	-60.3	44.2	1	60	TS	996		Neutral
Bob	Jul 24, 1985	18	-80.5	30.5	2	65	SS1	1003		Neutral
Claudette	Aug 15, 1985	12	-40.0	35.8	3	75	SS1	980		Neutral

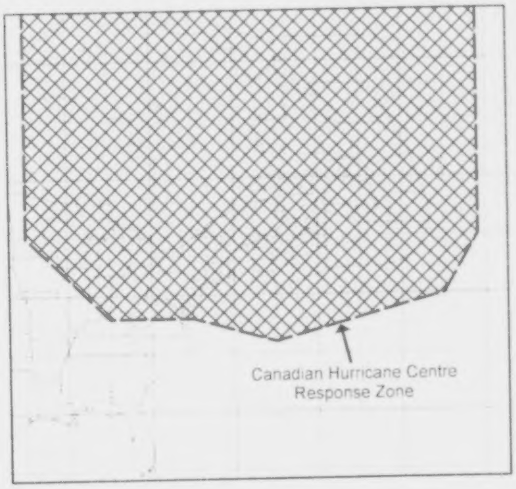
Name	Date	Hour UTC	Longi-tude	Lati-tude	Yearly Storm #	Max Wind (kts)	SS Scale	Pres (mb)	Com-ment	ENSO
Danny	Aug 15, 1985	12	-92.6	28.9	4	80	SS1	988		Neutral
Elena	Sep 01, 1985	18	-84.8	28.9	5	110	SS3	954		Neutral
Fabian	Sep 17, 1985	12	-61.2	28.1	6	55	TS	994		Neutral
Gloria	Sep 25, 1985	6	-70.9	25.1	7	125	SS4	920		Neutral
Henri	Sep 23, 1985	12	-74.1	36.0	8	50	TS	996		Neutral
Isabel	Oct 08, 1985	18	-72.0	26.3	9	60	TS	1002		Neutral
Juan	Oct 28, 1985	12	-92.0	29.4	10	75	SS1	972		Neutral
Kate	Nov 20, 1985	12	-85.3	25.2	11	105	SS3	956		Neutral
Andrew	Jun 06, 1986	12	-78.0	30.7	1	45	TS	1005		El Nino
Bonnie	Jun 26, 1986	6	-93.7	29.0	2	75	SS1	995		El Nino
Charley	Aug 18, 1986	0	-75.8	36.5	3	70	SS1	987		El Nino
Danielle	Sep 08, 1986	6	-59.4	12.2	4	50	TS	1000		El Nino
Earl	Sep 12, 1986	18	-55.4	27.2	5	90	SS2	985		El Nino
Frances	Nov 20, 1986	12	-59.6	27.8	6	75	SS1	1000		El Nino
Not Named	Aug 10, 1987	0	-94.4	28.4	1	40	TS	1008		El Nino
Arlene	Aug 22, 1987	6	-43.0	36.5	2	65	SS1	988		El Nino
Bret	Aug 20, 1987	6	-35.5	15.7	3	45	TS	1000		El Nino
Cindy	Sep 08, 1987	0	-39.4	28.2	4	45	TS	1000		El Nino
Dennis	Sep 11, 1987	12	-27.7	12.3	5	45	TS	1001		El Nino
Emily	Sep 22, 1987	18	-69.1	16.7	6	110	SS3	958		El Nino
Floyd	Oct 12, 1987	12	-82.9	24.0	7	65	SS1	993		El Nino
Alberto	Aug 07, 1988	12	-69.0	41.5	1	35	TS	1002		La Nina
Beryl	Aug 09, 1988	0	-89.1	29.3	2	45	TS	1002		La Nina
Chris	Aug 28, 1988	12	-80.8	30.8	3	45	TS	1005		La Nina
Debby	Sep 02, 1988	18	-96.6	20.8	4	65	SS1	992		La Nina
Ernesto	Sep 05, 1988	0	-29.7	43.1	5	55	TS	994		La Nina
Not Named	Sep 08, 1988	12	-20.5	17.5	6	50	TS	1002		La Nina
Florence	Sep 10, 1988	0	-89.3	28.7	7	70	SS1	983		La Nina
Gilbert	Sep 14, 1988	0	-83.8	19.7	8	160	SS5	888		La Nina
Helene	Sep 23, 1988	18	-46.1	15.3	9	125	SS4	938		La Nina
Isaac	Oct 01, 1988	0	-57.7	11.8	10	40	TS	1005		La Nina
Joan	Oct 22, 1988	6	-83.2	11.9	11	125	SS4	932		La Nina
Keith	Nov 26, 1988	0	-43.0	48.0	12	65	SS1	950	E	La Nina
Allison	Jun 26, 1989	18	-95.7	29.1	1	45	TS	1001		Neutral
Barry	Jul 12, 1989	0	-53.1	21.4	2	45	TS	1005		Neutral
Chantal	Aug 01, 1989	6	-93.5	28.7	3	70	SS1	987		Neutral
Dean	Aug 07, 1989	0	-64.9	34.0	4	90	SS2	968		Neutral
Erin	Aug 24, 1989	12	-44.5	34.1	5	90	SS2	970		Neutral
Felix	Sep 05, 1989	18	-48.3	36.7	6	75	SS1	979		Neutral
Gabrielle	Sep 05, 1989	0	-55.7	19.3	7	125	SS4	944		Neutral
Hugo	Sep 15, 1989	18	-54.6	14.6	8	140	SS5	918		Neutral
Iris	Sep 19, 1989	12	-58.2	19.2	9	60	TS	1001		Neutral
Jerry	Oct 16, 1989	0	-95.0	29.1	10	75	SS1	983		Neutral
Karen	Nov 30, 1989	12	-83.4	20.8	11	50	TS	1001		Neutral
Arthur	Jul 25, 1990	18	-63.7	13.1	1	60	TS	995		Neutral
Bertha	Jul 31, 1990	0	-67.0	36.6	2	70	SS1	974		Neutral
Cesar	Aug 02, 1990	6	-33.5	16.1	3	45	TS	1002		Neutral

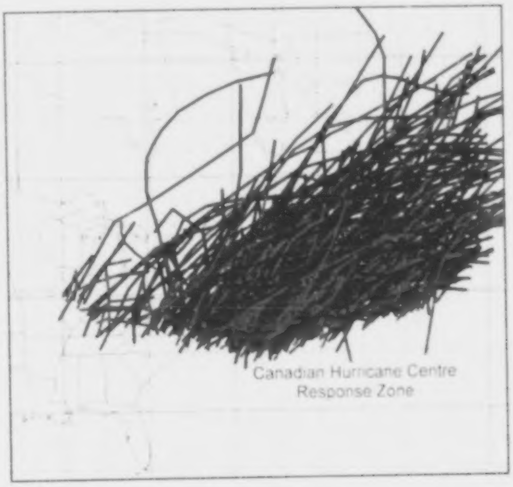
Name	Date	Hour UTC	Longi- tude	Lati- tude	Yearly Storm #	Max Wind (kts)	SS Scale	Pres (mb)	Com- ment	ENSO
Diana	Aug 07, 1990	18	-96.8	20.9	4	85	SS2	980		Neutral
Edouard	Aug 03, 1990	18	-23.9	39.5	5	40	TS	1006	S	Neutral
Fran	Aug 13, 1990	18	-53.6	9.0	6	35	TS	1010		Neutral
Gustav	Aug 31, 1990	6	-57.5	30.3	7	105	SS3	956		Neutral
Hortense	Aug 28, 1990	6	-43.6	21.7	8	55	TS	994		Neutral
Isidore	Sep 07, 1990	12	-37.6	18.5	9	85	SS2	978		Neutral
Josephine	Oct 05, 1990	18	-38.4	34.1	10	75	SS1	980		Neutral
Klaus	Oct 05, 1990	12	-61.2	17.2	11	70	SS1	985		Neutral
Lili	Oct 11, 1990	0	-55.9	31.2	12	65	SS1	987		Neutral
Marco	Oct 11, 1990	6	-82.6	26.7	13	55	TS	989		Neutral
Nana	Oct 18, 1990	6	-63.8	24.1	14	75	SS1	990		Neutral
Ana	Jul 04, 1991	6	-67.8	37.1	1	45	TS	1002		El Nino
Bob	Aug 19, 1991	6	-74.5	36.5	2	100	SS3	950		El Nino
Claudette	Sep 07, 1991	12	-61.7	27.2	3	115	SS4	946		El Nino
Danny	Sep 09, 1991	6	-39.6	11.8	4	45	TS	1000		El Nino
Erika	Sep 10, 1991	12	-46.1	34.7	5	50	TS	998		El Nino
Fabian	Oct 15, 1991	18	-83.1	21.2	6	40	TS	1006		El Nino
Grace	Oct 29, 1991	12	-63.2	31.5	7	85	SS2	982		El Nino
Unnamed	Nov 01, 1991	18	-66.5	38.2	8	65	SS1	980		El Nino
Subtrop 1	Apr 22, 1992	6	-61.5	24.9	1	45	TS	1002	S	Neutral
Andrew	Aug 23, 1992	18	-75.8	25.4	2	135	SS4	922		Neutral
Bonnie	Sep 21, 1992	18	-52.3	37.5	3	95	SS2	965		Neutral
Charley	Sep 24, 1992	18	-34.1	36.1	4	95	SS2	965		Neutral
Danielle	Sep 25, 1992	12	-75.2	35.9	5	55	TS	1001		Neutral
Earl	Oct 01, 1992	18	-70.3	28.4	6	55	TS	996		Neutral
Frances	Oct 24, 1992	12	-58.8	30.6	7	75	SS1	976		Neutral
Arlene	Jun 19, 1993	12	-95.9	25.9	1	35	TS	1000		Neutral
Bret	Aug 06, 1993	6	-52.9	10.1	2	50	TS	1005		Neutral
Cindy	Aug 16, 1993	12	-69.3	17.3	3	40	TS	1007		Neutral
Dennis	Aug 25, 1993	0	-35.8	16.4	4	45	TS	1000		Neutral
Emily	Aug 31, 1993	18	-75.2	34.5	5	100	SS3	962		Neutral
Floyd	Sep 12, 1993	12	-7.5	48.0	6	70	SS1	972	E	Neutral
Gert	Sep 20, 1993	18	-97.0	21.3	7	85	SS2	970		Neutral
Harvey	Sep 20, 1993	18	-55.2	35.6	8	65	SS1	990		Neutral
Alberto	Jul 03, 1994	12	-86.7	29.9	1	55	TS	993		Neutral
Beryl	Aug 16, 1994	0	-85.6	30.0	2	50	TS	1000		Neutral
Chris	Aug 19, 1994	0	-50.6	17.0	3	70	SS1	985		Neutral
Debby	Sep 10, 1994	6	-61.6	14.1	4	60	TS	1006		Neutral
Ernesto	Sep 23, 1994	0	-30.4	13.1	5	50	TS	997		Neutral
Florence	Nov 08, 1994	0	-49.9	37.0	6	95	SS2	972		Neutral
Gordon	Nov 18, 1994	0	-74.2	33.1	7	75	SS1	980		Neutral
Allison	Jun 04, 1995	12	-86.2	24.7	1	65	SS1	987		Neutral
Barry	Jul 07, 1995	18	-70.2	33.2	2	60	TS	1001		Neutral
Chantal	Jul 17, 1995	0	-69.4	27.2	3	60	TS	991		Neutral
Dean	Jul 31, 1995	0	-95.0	29.0	4	40	TS	999		Neutral
Erin	Aug 03, 1995	12	-86.6	29.8	5	80	SS1	974		Neutral
Felix	Aug 12, 1995	18	-61.0	24.3	6	120	SS4	929		Neutral

Name	Date	Hour UTC	Longi-tude	Lati-tude	Yearly Storm #	Max Wind (kts)	SS Scale	Pres (mb)	Com-ment	ENSO
Gabrielle	Aug 11, 1995	18	-97.5	23.6	7	60	TS	990		Neutral
Humberto	Aug 24, 1995	18	-43.2	15.7	8	95	SS2	968		Neutral
Iris	Sep 01, 1995	6	-58.8	25.5	9	95	SS2	965		Neutral
Jerry	Aug 23, 1995	12	-79.7	26.4	10	35	TS	1008		Neutral
Karen	Aug 28, 1995	18	-43.6	17.4	11	45	TS	1001		Neutral
Luis	Sep 03, 1995	6	-51.8	17.4	12	120	SS4	948		Neutral
Marilyn	Sep 16, 1995	18	-66.4	19.7	13	100	SS3	950		Neutral
Noel	Sep 28, 1995	18	-42.6	15.2	14	65	SS1	987		Neutral
Opal	Oct 04, 1995	12	-88.5	27.3	15	130	SS4	919		Neutral
Pablo	Oct 06, 1995	0	-41.9	11.5	16	50	TS	997		Neutral
Roxanne	Oct 11, 1995	0	-87.0	20.0	17	100	SS3	958		Neutral
Sebastien	Oct 22, 1995	18	-58.5	21.5	18	55	TS	1001		Neutral
Tanya	Oct 30, 1995	18	-51.8	33.8	19	75	SS1	977		Neutral
Arthur	Jun 21, 1996	18	-56.2	37.8	1	45	TS	1000	E	Neutral
Bertha	Jul 09, 1996	6	-67.7	20.3	2	100	SS3	960		Neutral
Cesar	Jul 27, 1996	12	-79.5	11.6	3	70	SS1	992		Neutral
Dolly	Aug 23, 1996	12	-97.7	21.6	4	70	SS1	989		Neutral
Edouard	Aug 25, 1996	6	-47.0	15.4	5	125	SS4	933		Neutral
Fran	Sep 04, 1996	12	-74.7	27.0	6	105	SS3	956		Neutral
Gustav	Aug 29, 1996	0	-35.2	12.5	7	40	TS	1005		Neutral
Hortense	Sep 13, 1996	0	-71.5	25.9	8	120	SS4	935		Neutral
Isidore	Sep 28, 1996	0	-42.9	15.8	9	100	SS3	960		Neutral
Josephine	Oct 07, 1996	12	-87.3	26.9	10	60	TS	981		Neutral
Kyle	Oct 11, 1996	18	-87.1	16.9	11	45	TS	1002		Neutral
Lili	Oct 19, 1996	12	-74.0	24.4	12	100	SS3	960		Neutral
Marco	Nov 20, 1996	6	-78.5	13.8	13	65	SS1	983		Neutral
Subtrop	Jun 01, 1997	18	-74.1	35.5	1	45	TS	1004	S	El Nino
Ana	Jul 01, 1997	12	-74.6	31.7	2	40	TS	1004		El Nino
Bill	Jul 12, 1997	12	-61.1	37.9	3	65	SS1	987		El Nino
Claudette	Jul 13, 1997	18	-73.0	31.9	4	40	TS	1004		El Nino
Danny	Jul 18, 1997	12	-89.4	29.5	5	70	SS1	990		El Nino
Erika	Sep 08, 1997	18	-62.5	23.2	6	110	SS3	952		El Nino
Fabian	Oct 08, 1997	18	-48.8	29.2	7	40	TS	1005	E	El Nino
Grace	Oct 15, 1997	12	-68.0	20.6	8	40	TS	999	E	El Nino
Alex	Jul 30, 1998	18	-46.1	15.1	1	45	TS	1003		La Nina
Bonnie	Aug 23, 1998	12	-71.5	24.1	2	100	SS3	958		La Nina
Charley	Aug 22, 1998	6	-96.5	27.5	3	60	TS	1002		La Nina
Danielle	Aug 26, 1998	6	-49.1	18.4	4	90	SS2	975		La Nina
Earl	Sep 02, 1998	18	-87.9	28.7	5	85	SS2	988		La Nina
Frances	Sep 11, 1998	0	-95.9	27.2	6	55	TS	994		La Nina
Georges	Sep 20, 1998	6	-56.3	16.0	7	135	SS4	937		La Nina
Hermine	Sep 19, 1998	18	-91.1	28.3	8	40	TS	1000		La Nina
Ivan	Sep 26, 1998	6	-36.3	39.2	9	80	SS1	975		La Nina
Jeanne	Sep 24, 1998	6	-33.4	15.9	10	90	SS2	971		La Nina
Karl	Sep 27, 1998	0	-47.3	33.9	11	90	SS2	970		La Nina
Lisa	Oct 09, 1998	12	-38.7	41.6	12	65	SS1	995		La Nina
Mitch	Oct 26, 1998	18	-83.1	16.9	13	155	SS5	905		La Nina

Name	Date	Hour UTC	Longi-tude	Lati-tude	Yearly Storm #	Max Wind (kts)	SS Scale	Pres (mb)	Com-ment	ENSO
Nicole	Dec 01, 1998	0	-37.9	35.1	14	75	SS1	979		La Nina
Arlene	Jun 13, 1999	0	-57.5	28.8	1	50	TS	1006		La Nina
Bret	Aug 22, 1999	6	-95.5	25.5	2	125	SS4	950		La Nina
Cindy	Aug 28, 1999	12	-58.0	30.1	3	120	SS4	942		La Nina
Dennis	Aug 28, 1999	18	-77.3	27.7	4	90	SS2	969		La Nina
Emily	Aug 24, 1999	18	-53.9	11.6	5	45	TS	1004		La Nina
Floyd	Sep 13, 1999	6	-70.0	23.6	6	135	SS4	922		La Nina
Gert	Sep 16, 1999	0	-50.8	17.8	7	130	SS4	930		La Nina
Harvey	Sep 20, 1999	18	-85.5	27.0	8	50	TS	998		La Nina
Irene	Oct 18, 1999	6	-75.2	34.8	9	95	SS2	964		La Nina
Jose	Oct 20, 1999	12	-61.1	16.8	10	85	SS2	980		La Nina
Katrina	Oct 29, 1999	18	-82.9	13.2	11	35	TS	1000		La Nina
Lenny	Nov 17, 1999	18	-64.8	17.4	12	135	SS4	933		La Nina
Alberto	Aug 12, 2000	12	-55.3	35.9	1	110	SS3	950		La Nina
Beryl	Aug 14, 2000	18	-96.3	23.9	2	45	TS	1009		La Nina
Chris	Aug 18, 2000	12	-55.4	16.2	3	35	TS	1008		La Nina
Debby	Aug 21, 2000	12	-56.3	15.7	4	75	SS1	1004		La Nina
Ernesto	Sep 02, 2000	6	-49.5	16.2	5	35	TS	1008		La Nina
Florence	Sep 16, 2000	18	-61.8	36.1	6	70	SS1	985		La Nina
Gordon	Sep 17, 2000	6	-84.9	26.1	7	70	SS1	981		La Nina
Helene	Sep 21, 2000	18	-87.1	27.1	8	60	TS	999		La Nina
Isaac	Sep 28, 2000	18	-54.2	26.6	9	120	SS4	943		La Nina
Joyce	Sep 28, 2000	6	-42.5	12.2	10	80	SS1	975		La Nina
Keith	Oct 01, 2000	6	-87.2	17.9	11	120	SS4	941		La Nina
Leslie	Oct 10, 2000	18	-10.0	53.0	12	60	TS	973	E	La Nina
Michael	Oct 19, 2000	18	-58.5	44.0	13	85	SS2	965		La Nina
Nadine	Oct 21, 2000	0	-55.2	32.4	14	50	TS	999		La Nina
Subtrop	Oct 28, 2000	18	-65.5	38.0	15	55	TS	984	S	La Nina

CANADIAN HURRICANE CENTRE RESPONSE ZONE - 20TH CENTURY STORM SUMMARY

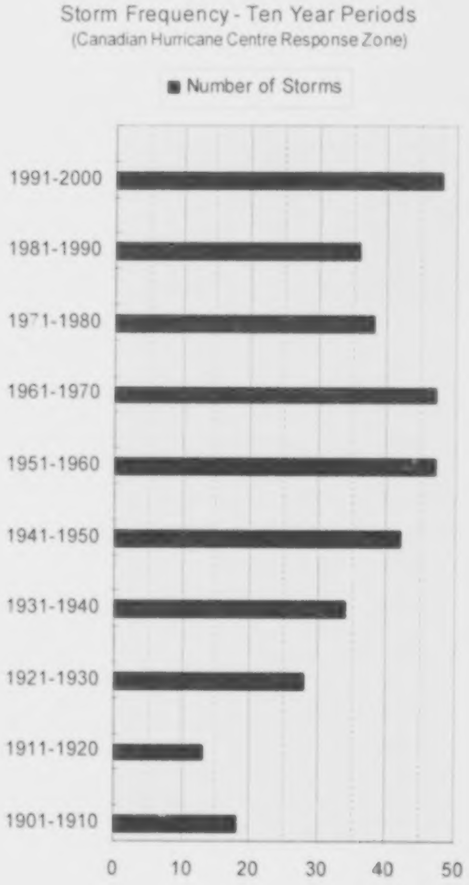

Canadian Hurricane Centre Response Zone

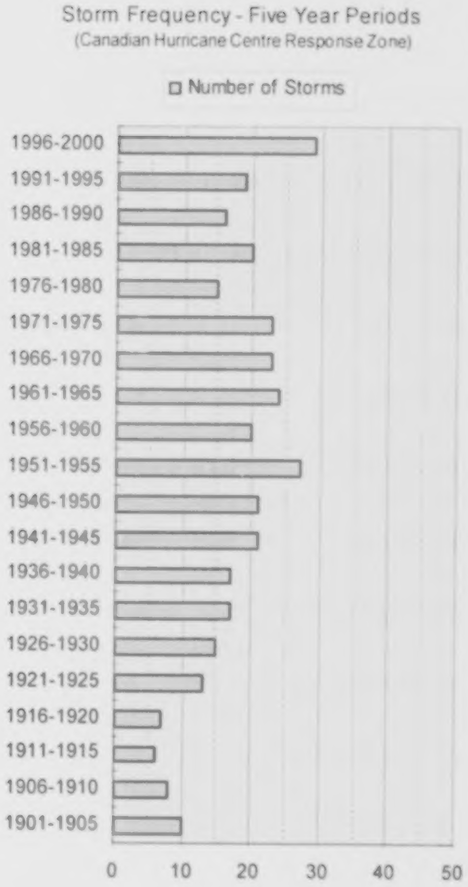

Canadian Hurricane Centre Response Zone

351 storms were reported over the *Canadian Hurricane Centre Response Zone* during the 1901 to 2000 period while 216 storms occurred during the 1951 to 2000 period. The full *Canadian Hurricane Centre Response Zone* storm summary is provided in this section. It can be used as a general reference to the 20th century tropical storm events threatening Canada and adjacent offshore waters.

Storm Frequencies

Decadal and Five Year Periods

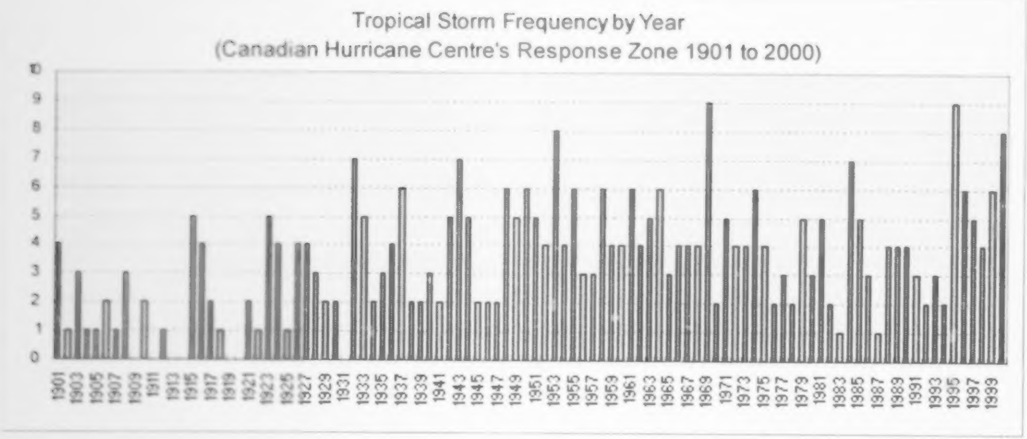




10-Year Periods	Number of Storms	5-Year Periods	Number of Storms
1901-1910	18	1901-1905	10
		1906-1910	8
1911-1920	13	1911-1915	6
		1916-1920	7
1921-1930	28	1921-1925	13
		1926-1930	15
1931-1940	34	1931-1935	17
		1936-1940	17
1941-1950	42	1941-1945	21
		1946-1950	21
1951-1960	47	1951-1955	27

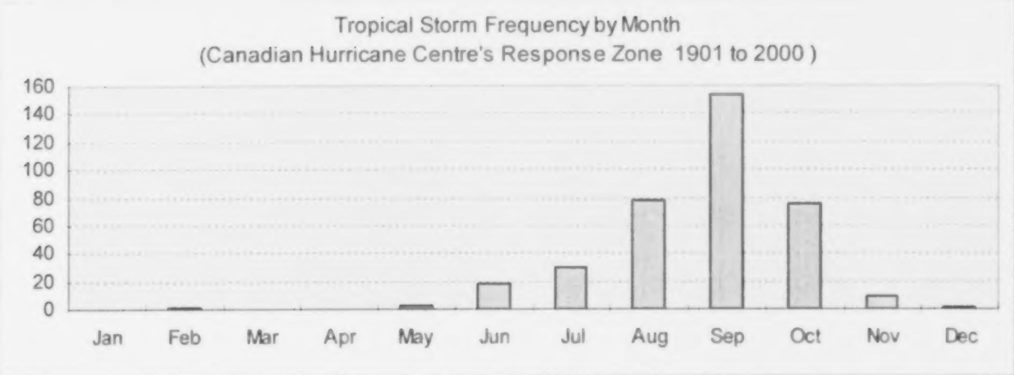
10-Year Periods	Number of Storms	5-Year Periods	Number of Storms
		1956-1960	20
1961-1970	47	1961-1965	24
		1966-1970	23
1971-1980	38	1971-1975	23
		1976-1980	15
1981-1990	36	1981-1985	20
		1986-1990	16
1991-2000	48	1991-1995	19
		1996-2000	29

Yearly


Tropical Storm Frequency by Year
(Canadian Hurricane Centre's Response Zone 1901 to 2000)

Year	#	Year	#	Year	#	Year	#	Year	#
1901	4	1921	2	1941	2	1961	6	1981	5
1902	1	1922	1	1942	5	1962	4	1982	2
1903	3	1923	5	1943	7	1963	5	1983	1
1904	1	1924	4	1944	5	1964	6	1984	7
1905	1	1925	1	1945	2	1965	3	1985	5
1906	2	1926	4	1946	2	1966	4	1986	3
1907	1	1927	4	1947	2	1967	4	1987	1
1908	3	1928	3	1948	6	1968	4	1988	4
1909	0	1929	2	1949	5	1969	9	1989	4
1910	2	1930	2	1950	6	1970	2	1990	4
1911	0	1931	0	1951	5	1971	5	1991	3
1912	1	1932	7	1952	4	1972	4	1992	2
1913	0	1933	5	1953	8	1973	4	1993	3
1914	0	1934	2	1954	4	1974	6	1994	2
1915	5	1935	3	1955	6	1975	4	1995	9
1916	4	1936	4	1956	3	1976	2	1996	6
1917	2	1937	6	1957	3	1977	3	1997	5
1918	1	1938	2	1958	6	1978	2	1998	4
1919	0	1939	2	1959	4	1979	5	1999	6
1920	0	1940	3	1960	4	1980	3	2000	8

Monthly



Note: Storms that span months were counted in both months

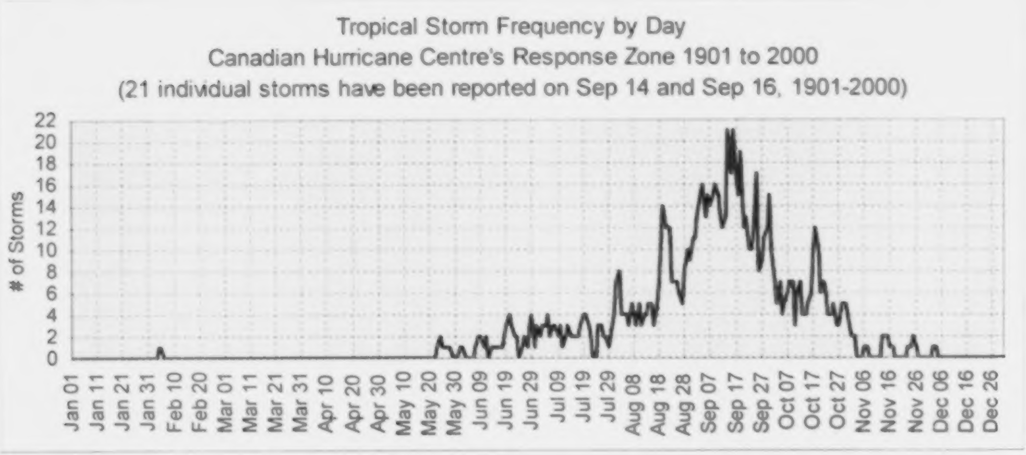
January	#	February	#	March	#	April	#	May	#	June	#
		1952	1					1940	1	1906	1
								1948	1	1934	1
								1951	1	1945	1
								1997	1	1959	1
										1960	1
										1964	1
										1965	1
										1966	1
										1968	1
										1972	1
										1975	1
										1981	1
										1982	1
										1986	1
										1991	1
										1995	1
										1996	1
										1957	2
										1997	2
Total	**0**	**Total**	**1**	**Total**	**0**	**Total**	**0**	**Total**	**4**	**Total**	**21**

July	#	August	#	September	#	October	#	November	#	December	#
1903	1	1901	1	1904	1	1902	1	1912	1	1925	1
1908	1	1906	1	1906	1	1905	1	1924	1		
1915	1	1923	1	1910	1	1907	1	1925	1		
1916	1	1927	1	1916	1	1910	1	1932	1		
1937	1	1939	1	1917	1	1915	1	1967	1		
1945	1	1940	1	1918	1	1921	1	1969	1		
1946	1	1942	1	1921	1	1926	1	1978	1		
1959	1	1944	1	1922	1	1935	1	1981	1		
1960	1	1948	1	1926	1	1937	1	1984	1		
1963	1	1951	1	1928	1	1938	1	1988	1		
1964	1	1956	1	1929	1	1939	1	1991	1		
1969	1	1962	1	1930	1	1944	1	1998	1		

July	#	August	#	September	#	October	#	November	#	December	#
1971	1	1966	1	1933	1	1947	1				
1974	1	1967	1	1934	1	1948	1				
1981	1	1968	1	1938	1	1951	1				
1989	1	1970	1	1945	1	1952	1				
1990	1	1973	1	1946	1	1954	1				
1991	1	1978	1	1947	1	1955	1				
1996	1	1980	1	1957	1	1967	1				
1926	2	1985	1	1960	1	1968	1				
1944	2	1986	1	1965	1	1970	1				
1966	2	1991	1	1966	1	1973	1				
1973	2	1993	1	1968	1	1974	1				
1975	2	2000	1	1971	1	1975	1				
1979	2	1908	2	1973	1	1977	1				
1985	2	1917	2	1978	1	1978	1				
1995	3	1924	2	1981	1	1979	1				
1997	4	1926	2	1982	1	1985	1				
		1928	2	1983	1	1990	1				
		1930	2	1986	1	1991	1				
		1932	2	1987	1	1992	1				
		1933	2	1988	1	1996	1				
		1935	2	1992	1	1998	1				
		1936	2	1901	2	1901	2				
		1937	2	1903	2	1916	2				
		1943	2	1908	2	1927	2				
		1949	2	1923	2	1929	2				
		1952	2	1924	2	1933	2				
		1954	2	1927	2	1942	2				
		1963	2	1935	2	1949	2				
		1965	2	1940	2	1950	2				
		1972	2	1941	2	1953	2				
		1974	2	1944	2	1958	2				
		1976	2	1949	2	1959	2				
		1979	2	1956	2	1961	2				
		1984	2	1958	2	1962	2				
		1988	2	1959	2	1963	2				
		1990	2	1963	2	1969	2				
		1994	2	1975	2	1995	2				
		1996	2	1977	2	1999	2				
		1999	2	1979	2	1932	3				
		1950	3	1980	2	1943	3				
		1953	3	1985	2	1984	3				
		1955	3	1990	2	1923	4				
		1958	3	1998	2	2000	4				
		1960	3	1915	3						
		1964	3	1936	3						
		1971	3	1942	3						
		1981	3	1943	3						
		1989	3	1951	3						
		1998	3	1952	3						
		1915	4	1954	3						
		1969	4	1955	3						
		1995	4	1962	3						
				1967	3						
				1969	3						
				1972	3						
				1974	3						

July	#	August	#	September	#	October	#	November	#	December	#
				1989	3						
				1993	3						
				1996	3						
				1999	3						
				1932	4						
				1937	4						
				1948	4						
				1950	4						
				1964	4						
				1984	4						
				1995	4						
				2000	4						
				1953	5						
				1961	5						
Total	**40**	**Total**	**120**	**Total**	**170**	**Total**	**84**	**Total**	**12**	**Total**	**1**

Daily



Note: Storms will generally span more than one day. The storm is counted in each day

Day	#	Day	#	Day	#	Day	#	Day	#	Day	#
Jan 01	0	Mar 01	0	May 01	0	Jul 01	3	Aug 31	11	Nov 01	2
Jan 02	0	Mar 02	0	May 02	0	Jul 02	2	Sep 01	11	Nov 02	2
Jan 03	0	Mar 03	0	May 03	0	Jul 03	3	Sep 02	13	Nov 03	0
Jan 04	0	Mar 04	0	May 04	0	Jul 04	3	Sep 03	15	Nov 04	0
Jan 05	0	Mar 05	0	May 05	0	Jul 05	4	Sep 04	16	Nov 05	0
Jan 06	0	Mar 06	0	May 06	0	Jul 06	2	Sep 05	13	Nov 06	1
Jan 07	0	Mar 07	0	May 07	0	Jul 07	3	Sep 06	15	Nov 07	1
Jan 08	0	Mar 08	0	May 08	0	Jul 08	3	Sep 07	14	Nov 08	0
Jan 09	0	Mar 09	0	May 09	0	Jul 09	2	Sep 08	15	Nov 09	0
Jan 10	0	Mar 10	0	May 10	0	Jul 10	3	Sep 09	16	Nov 10	0
Jan 11	0	Mar 11	0	May 11	0	Jul 11	1	Sep 10	15	Nov 11	0
Jan 12	0	Mar 12	0	May 12	0	Jul 12	2	Sep 11	13	Nov 12	0
Jan 13	0	Mar 13	0	May 13	0	Jul 13	3	Sep 12	12	Nov 13	2

Day	#	Day	#	Day	#	Day	#	Day	#	Day	#
Jan 14	0	Mar 14	0	May 14	0	Jul 14	2	Sep 13	13	Nov 14	2
Jan 15	0	Mar 15	0	May 15	0	Jul 15	2	Sep 14	21	Nov 15	2
Jan 16	0	Mar 16	0	May 16	0	Jul 16	2	Sep 15	17	Nov 16	1
Jan 17	0	Mar 17	0	May 17	0	Jul 17	2	Sep 16	21	Nov 17	1
Jan 18	0	Mar 18	0	May 18	0	Jul 18	3	Sep 17	16	Nov 18	0
Jan 19	0	Mar 19	0	May 19	0	Jul 19	4	Sep 18	15	Nov 19	0
Jan 20	0	Mar 20	0	May 20	0	Jul 20	4	Sep 19	19	Nov 20	0
Jan 21	0	Mar 21	0	May 21	0	Jul 21	3	Sep 20	12	Nov 21	0
Jan 22	0	Mar 22	0	May 22	0	Jul 22	2	Sep 21	13	Nov 22	0
Jan 23	0	Mar 23	0	May 23	1	Jul 23	0	Sep 22	10	Nov 23	1
Jan 24	0	Mar 24	0	May 24	2	Jul 24	0	Sep 23	10	Nov 24	1
Jan 25	0	Mar 25	0	May 25	1	Jul 25	3	Sep 24	11	Nov 25	2
Jan 26	0	Mar 26	0	May 26	1	Jul 26	3	Sep 25	17	Nov 26	1
Jan 27	0	Mar 27	0	May 27	1	Jul 27	2	Sep 26	8	Nov 27	0
Jan 28	0	Mar 28	0	May 28	1	Jul 28	2	Sep 27	9	Nov 28	0
Jan 29	0	Mar 29	0	May 29	0	Jul 29	1	Sep 28	11	Nov 29	0
Jan 30	0	Mar 30	0	May 30	0	Jul 30	2	Sep 29	12	Nov 30	0
Jan 31	0	Mar 31	0	May 31	0	Jul 31	4	Sep 30	15	Dec 01	0
Feb 01	0	Apr 01	0	Jun 01	1	Aug 01	7	Oct 01	10	Dec 02	0
Feb 02	0	Apr 02	0	Jun 02	1	Aug 02	8	Oct 02	7	Dec 03	1
Feb 03	0	Apr 03	0	Jun 03	0	Aug 03	4	Oct 03	5	Dec 04	1
Feb 04	1	Apr 04	0	Jun 04	0	Aug 04	4	Oct 04	7	Dec 05	0
Feb 05	1	Apr 05	0	Jun 05	0	Aug 05	4	Oct 05	4	Dec 06	0
Feb 06	0	Apr 06	0	Jun 06	0	Aug 06	3	Oct 06	5	Dec 07	0
Feb 07	0	Apr 07	0	Jun 07	1	Aug 07	5	Oct 07	6	Dec 08	0
Feb 08	0	Apr 08	0	Jun 08	2	Aug 08	4	Oct 08	7	Dec 09	0
Feb 09	0	Apr 09	0	Jun 09	2	Aug 09	3	Oct 09	7	Dec 10	0
Feb 10	0	Apr 10	0	Jun 10	1	Aug 10	5	Oct 10	3	Dec 11	0
Feb 11	0	Apr 11	0	Jun 11	2	Aug 11	3	Oct 11	6	Dec 12	0
Feb 12	0	Apr 12	0	Jun 12	0	Aug 12	4	Oct 12	7	Dec 13	0
Feb 13	0	Apr 13	0	Jun 13	1	Aug 13	4	Oct 13	4	Dec 14	0
Feb 14	0	Apr 14	0	Jun 14	1	Aug 14	5	Oct 14	4	Dec 15	0
Feb 15	0	Apr 15	0	Jun 15	1	Aug 15	5	Oct 15	5	Dec 16	0
Feb 16	0	Apr 16	0	Jun 16	1	Aug 16	3	Oct 16	6	Dec 17	0
Feb 17	0	Apr 17	0	Jun 17	1	Aug 17	5	Oct 17	10	Dec 18	0
Feb 18	0	Apr 18	0	Jun 18	2	Aug 18	7	Oct 18	12	Dec 19	0
Feb 19	0	Apr 19	0	Jun 19	3	Aug 19	14	Oct 19	10	Dec 20	0
Feb 20	0	Apr 20	0	Jun 20	4	Aug 20	13	Oct 20	6	Dec 21	0
Feb 21	0	Apr 21	0	Jun 21	3	Aug 21	12	Oct 21	7	Dec 22	0
Feb 22	0	Apr 22	0	Jun 22	2	Aug 22	12	Oct 22	6	Dec 23	0
Feb 23	0	Apr 23	0	Jun 23	2	Aug 23	7	Oct 23	4	Dec 24	0
Feb 24	0	Apr 24	0	Jun 24	0	Aug 24	7	Oct 24	4	Dec 25	0
Feb 25	0	Apr 25	0	Jun 25	1	Aug 25	7	Oct 25	5	Dec 26	0
Feb 26	0	Apr 26	0	Jun 26	2	Aug 26	6	Oct 26	3	Dec 27	0
Feb 27	0	Apr 27	0	Jun 27	1	Aug 27	5	Oct 27	3	Dec 28	0
Feb 28	0	Apr 28	0	Jun 28	3	Aug 28	8	Oct 28	5	Dec 29	0
Feb 29	0	Apr 29	0	Jun 29	4	Aug 29	10	Oct 29	5	Dec 30	0
		Apr 30	0	Jun 30	1	Aug 30	9	Oct 30	5	Dec 31	0
								Oct 31	3		

Summary Statistics

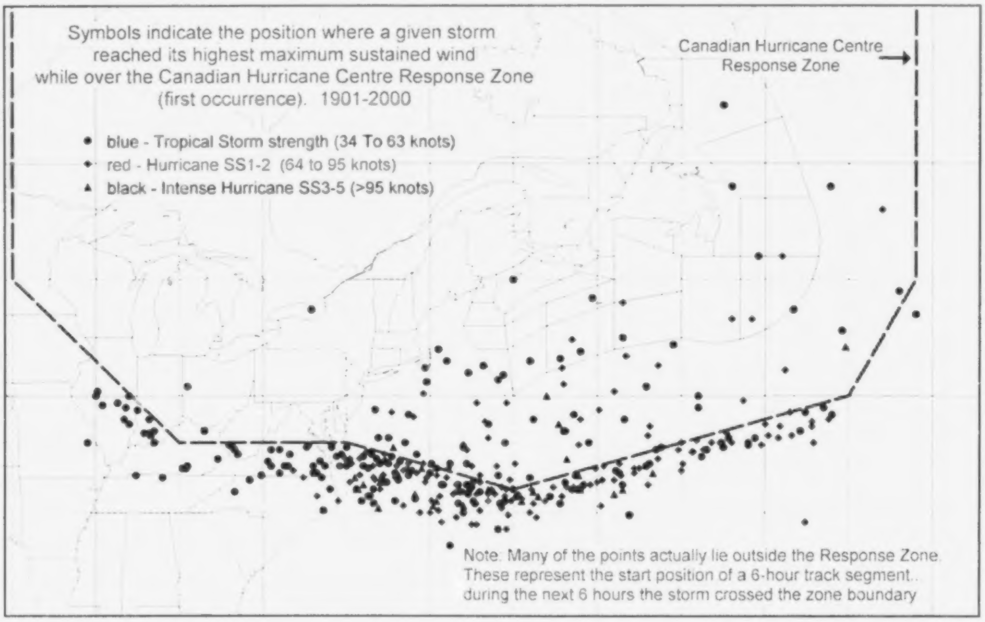
Note: The records displayed in the table below were calculated using the highest sustained wind reported during a storm's transit of the *Canadian Hurricane Centre Response Zone*.

100 Yr	**TD**	**TS**	**G**	**S**	**S1**	**S2**	**S3**	**S4**	**S5**	**H**	**<H**	**ALL**	**Sys-Spd**
#	38	140	69	71	89	57	22	5	0	173	178	351	24.1
Return	2.6	0.7	1.4	1.4	1.1	1.8	4.5	20	NA	0.6	0.6	0.3	
50 Yr	**TD**	**TS**	**G**	**S**	**S1**	**S2**	**S3**	**S4**	**S5**	**H**	**<H**	**ALL**	**Sys-Spd**
#	22	88	33	55	63	29	10	4	0	106	110	216	24.5
Return	2.3	0.6	1.5	0.9	0.8	1.7	5	12.5	NA	0.5	0.5	0.2	

Storm Table: name, number, date, maximum wind, etc.

Note: The records displayed in the table below were extracted by choosing the first example (chronologically) of the highest sustained wind reported during a storm's transit of the *Canadian Hurricane Centre Response Zone*. The latitude and longitudes indicate the position where that first occurrence of highest wind took place and are displayed on the map below. Again, these numbers do not necessarily show the highest recorded wind during the full *life cycle* of the storm (see the North Atlantic Basin section above for those values).

Many tropical storms are weakening as they move northward towards Canadian waters. This is clearly shown by the heavy clustering of systems along the south *Response Zone* boundary. As described on the graphic, a storm's transit of the *Response Zone* begins with the 6-hour line segment that first crossed the boundary.


Symbols indicate the position where a given storm reached its highest maximum sustained wind while over the Canadian Hurricane Centre Response Zone (first occurrence). 1901-2000
● blue - Tropical Storm strength (34 To 63 knots)
● red - Hurricane SS1-2 (64 to 95 knots)
▲ black - Intense Hurricane SS3-5 (>95 knots)
Canadian Hurricane Centre Response Zone
Note: Many of the points actually lie outside the Response Zone. These represent the start position of a 6-hour track segment.. during the next 6 hours the storm crossed the zone boundary

Name	Date	Hour UTC	Longi-tude	Lati-tude	Yearly Storm #	Max Wind (kts)	SS Scale	Pres (mb)	Com-ment	ENSO
Not Named	Aug 18, 1901	12	-86.8	39	4	25	TD		E	Neutral
Not Named	Sep 19, 1901	6	-72.5	37.1	6	35	TS		E	Neutral
Not Named	Oct 01, 1901	18	-46.1	49	8	40	TS		E	Neutral
Not Named	Oct 12, 1901	6	-61.3	36.6	9	40	TS			Neutral
Not Named	Oct 13, 1902	6	-61	41.9	4	40	TS		E	El Nino
Not Named	Jul 25, 1903	0	-67.2	35.8	1	80	SS1			La Nina
Not Named	Sep 16, 1903	6	-73.3	36.4	4	80	SS1			La Nina
Not Named	Sep 30, 1903	0	-50	38.8	6	80	SS1			La Nina
Not Named	Sep 15, 1904	0	-77.6	36.5	2	65	SS1		E	El Nino
Not Named	Oct 11, 1905	0	-50.2	37.9	4	85	SS2		E	El Nino
Not Named	Jun 23, 1906	6	-56.5	37.7	2	35	TS			La Nina
Not Named	Sep 10, 1906	6	-62.1	35.7	3	85	SS2			La Nina
Not Named	Oct 19, 1907	0	-62.2	35.4	4	45	TS			Neutral
Not Named	Aug 01, 1908	18	-71	39.1	2	85	SS2			La Nina
Not Named	Sep 02, 1908	12	-72.1	36.7	3	35	TS			La Nina
Not Named	Sep 16, 1908	18	-67	35.1	4	75	SS1			La Nina
Not Named	Sep 26, 1910	0	-63.5	35.7	3	100	SS3			La Nina
Not Named	Oct 21, 1910	0	-72.6	36.3	4	45	TS			La Nina
Not Named	Nov 23, 1912	18	-71.4	36.9	6	65	SS1			Neutral
Not Named	Aug 04, 1915	0	-78.7	37	1	30	TD			Neutral
Not Named	Aug 21, 1915	18	-84.5	40.4	2	35	TS		E	Neutral
Not Named	Sep 09, 1915	18	-65.1	35.5	3	75	SS1			Neutral
Not Named	Sep 05, 1915	12	-84.6	36.9	4	30	TD			Neutral
Not Named	Oct 01, 1915	6	-84.8	36.9	5	35	TS		E	Neutral
Not Named	Jul 20, 1916	12	-72.8	36.6	2	90	SS2			La Nina
Not Named	Sep 24, 1916	6	-63.8	35.4	10	90	SS2			La Nina
Not Named	Oct 14, 1916	12	-46	39.2	12	55	TS			La Nina
Not Named	Oct 19, 1916	6	-87.6	36.6	13	50	TS			La Nina
Not Named	Aug 10, 1917	0	-73.6	35.7	1	40	TS			Neutral
Not Named	Sep 05, 1917	6	-58.5	36	2	100	SS3			Neutral
Not Named	Sep 06, 1918	0	-67.4	36.3	4	75	SS1			El Nino
Not Named	Sep 16, 1921	0	-61	36	3	90	SS2			Neutral
Not Named	Oct 18, 1921	6	-57.1	40.4	5	50	TS			Neutral
Not Named	Sep 22, 1922	0	-59	35.8	2	130	SS4			La Nina
Not Named	Sep 07, 1923	12	-58.7	37.1	1	90	SS2			Neutral
Not Named	Sep 30, 1923	18	-66.5	35.5	2	95	SS2			Neutral
Not Named	Oct 24, 1923	0	-75.6	37.4	4	50	TS		E	Neutral
Not Named	Oct 18, 1923	12	-68	37.8	5	45	TS			Neutral
Not Named	Oct 19, 1923	0	-87.5	39.4	6	25	TD		E	Neutral
Not Named	Aug 26, 1924	6	-74.3	36	2	105	SS3			La Nina
Not Named	Sep 04, 1924	0	-67	36.3	3	75	SS1			La Nina
Not Named	Sep 17, 1924	18	-72	36.6	4	40	TS		E	La Nina
Not Named	Nov 14, 1924	12	-58.5	36.2	8	60	TS			La Nina
Not Named	Dec 03, 1925	12	-73.5	37.6	2	40	TS			El Nino
Not Named	Aug 01, 1926	6	-87.1	38.4	1	25	TD		E	Neutral

Name	Date	Hour UTC	Longi-tude	Lati-tude	Yearly Storm #	Max Wind (kts)	SS Scale	Pres (mb)	Com-ment	ENSO
Not Named	Aug 07, 1926	6	-66.5	35.8	2	90	SS2			Neutral
Not Named	Sep 16, 1926	12	-70.9	35.8	4	110	SS3			Neutral
Not Named	Oct 23, 1926	18	-52.2	38.2	10	60	TS		E	Neutral
Not Named	Aug 24, 1927	6	-73	36	1	95	SS2		E	Neutral
Not Named	Sep 29, 1927	12	-47.6	34.6	3	70	SS1			Neutral
Not Named	Sep 27, 1927	12	-59.6	37	4	95	SS2			Neutral
Not Named	Oct 04, 1927	0	-79.5	37	5	30	TD			Neutral
Not Named	Aug 12, 1928	6	-75.9	37.8	1	30	TD		E	Neutral
Not Named	Aug 16, 1928	18	-82	37.9	2	25	TD			Neutral
Not Named	Sep 19, 1928	18	-77	37	4	40	TS			Neutral
Not Named	Oct 02, 1929	18	-77.3	37.9	2	35	TS		E	El Nino
Not Named	Oct 22, 1929	6	-47.1	38	3	70	SS1		E	El Nino
Not Named	Aug 27, 1930	12	-65.3	34.9	1	85	SS2		E	El Nino
Not Named	Sep 14, 1930	0	-67.5	37	2	85	SS2			El Nino
Not Named	Sep 03, 1932	18	-88	40	3	25	TD			Neutral
Not Named	Sep 08, 1932	12	-69.6	35.5	4	105	SS3			Neutral
Not Named	Sep 16, 1932	12	-73.7	36.9	5	35	TS		E	Neutral
Not Named	Sep 21, 1932	0	-86.7	38.3	6	20	TD			Neutral
Not Named	Oct 18, 1932	12	-82.7	37.3	8	15	TD			Neutral
Not Named	Oct 11, 1932	12	-62.8	35.7	9	40	TS			Neutral
Not Named	Nov 13, 1932	6	-56.4	37.3	10	65	SS1			Neutral
Not Named	Aug 23, 1933	18	-76.6	37.2	8	50	TS			Neutral
Not Named	Aug 28, 1933	18	-65.7	35.4	9	45	TS			Neutral
Not Named	Sep 17, 1933	0	-73.8	37.6	13	75	SS1			Neutral
Not Named	Oct 07, 1933	6	-68	35.3	18	110	SS3			Neutral
Not Named	Oct 28, 1933	12	-68.8	37.1	20	60	TS			Neutral
Not Named	Jun 18, 1934	18	-81.8	37.8	2	40	TS			Neutral
Not Named	Sep 08, 1934	12	-74.8	36.3	6	70	SS1		E	Neutral
Not Named	Aug 24, 1935	6	-61	36.1	1	90	SS2			Neutral
Not Named	Sep 07, 1935	0	-65.4	39.7	2	80	SS1			Neutral
Not Named	Oct 01, 1935	0	-65.4	34.3	4	90	SS2			Neutral
Not Named	Aug 10, 1936	6	-61.9	38.5	6	40	TS		E	Neutral
Not Named	Sep 04, 1936	0	-49.2	38.2	11	90	SS2			Neutral
Not Named	Sep 18, 1936	18	-75	37.2	13	85	SS2			Neutral
Not Named	Sep 24, 1936	0	-68.4	34.8	15	90	SS2			Neutral
Not Named	Jul 31, 1937	18	-74.4	36	1	60	TS			Neutral
Not Named	Aug 07, 1937	0	-72.3	37.4	2	50	TS			Neutral
Not Named	Sep 13, 1937	12	-64	35	4	75	SS1			Neutral
Not Named	Sep 18, 1937	18	-49.1	38.7	5	85	SS2			Neutral
Not Named	Sep 25, 1937	12	-60	36.3	7	85	SS2			Neutral
Not Named	Sep 28, 1937	12	-71.9	36.4	8	40	TS			Neutral
Not Named	Sep 21, 1938	12	-73.1	35.2	4	100	SS3	938		La Nina
Not Named	Oct 24, 1938	18	-76.4	35.1	7	35	TS		E	La Nina
Not Named	Aug 19, 1939	6	-78.4	37.5	2	25	TD			Neutral
Not Named	Oct 17, 1939	12	-61.1	36.6	4	105	SS3			Neutral
Not Named	May 24, 1940	18	-69.2	36.2	1	35	TS			El Nino
Not Named	Sep 01, 1940	18	-73.4	36.5	4	70	SS1			El Nino

Name	Date	Hour UTC	Longitude	Latitude	Yearly Storm #	Max Wind (kts)	SS Scale	Pres (mb)	Comment	ENSO
Not Named	Sep 16, 1940	0	-69.4	35.7	5	80	SS1			El Nino
Not Named	Sep 25, 1941	6	-88.2	39.5	2	35	TS		E	Neutral
Not Named	Sep 24, 1941	0	-71.1	36.8	3	55	TS			Neutral
Not Named	Aug 28, 1942	12	-55.2	37.7	3	75	SS1			La Nina
Not Named	Sep 21, 1942	18	-67	35.9	5	40	TS			La Nina
Not Named	Sep 30, 1942	0	-65.5	35.5	6	35	TS			La Nina
Not Named	Oct 04, 1942	0	-58.7	36.7	7	50	TS			La Nina
Not Named	Oct 17, 1942	18	-70.9	35.6	9	40	TS			La Nina
Not Named	Aug 19, 1943	12	-70	36.7	2	35	TS			Neutral
Not Named	Aug 25, 1943	12	-66.5	36	3	100	SS3			Neutral
Not Named	Sep 07, 1943	6	-62.6	36.1	4	95	SS2			Neutral
Not Named	Sep 14, 1943	18	-73.4	36	5	45	TS			Neutral
Not Named	Oct 01, 1943	0	-75	37.8	7	35	TS			Neutral
Not Named	Oct 02, 1943	12	-65.9	34.3	8	55	TS			Neutral
Not Named	Oct 17, 1943	0	-68.8	33.6	9	60	TS			Neutral
Not Named	Jul 18, 1944	18	-67.6	36	1	60	TS		E	La Nina
Not Named	Aug 02, 1944	18	-77.4	37.8	3	40	TS			La Nina
Not Named	Sep 14, 1944	18	-74.7	37.1	7	85	SS2			La Nina
Not Named	Sep 25, 1944	12	-53.2	38	9	85	SS2			La Nina
Not Named	Oct 21, 1944	12	-73.3	39.4	11	45	TS		E	La Nina
Not Named	Jun 27, 1945	0	-71.3	39.2	1	60	TS			Neutral
Not Named	Sep 18, 1945	12	-78.5	37	9	35	TS	1012		Neutral
Not Named	Jul 07, 1946	18	-70.8	36.7	2	70	SS1			Neutral
Not Named	Sep 14, 1946	12	-70	35	4	75	SS1			Neutral
Not Named	Sep 25, 1947	12	-75	37	6	15	TD		E	Neutral
Not Named	Oct 21, 1947	6	-61.4	36.1	9	85	SS2			Neutral
Not Named	May 28, 1948	12	-68	35	1	30	TD			Neutral
Not Named	Aug 31, 1948	18	-71.6	35.3	3	70	SS1			Neutral
Not Named	Sep 06, 1948	12	-88.3	39	5	25	TD			Neutral
Not Named	Sep 14, 1948	6	-64.9	35.7	6	100	SS3			Neutral
Not Named	Sep 24, 1948	6	-69.5	35.1	7	75	SS1			Neutral
Not Named	Oct 15, 1948	18	-47.9	38.5	8	35	TS			Neutral
Not Named	Aug 25, 1949	0	-72.9	36.5	1	90	SS2			La Nina
Not Named	Aug 29, 1949	0	-80.8	36.4	2	40	TS	1002		La Nina
Not Named	Sep 09, 1949	6	-61	36	4	105	SS3			La Nina
Not Named	Oct 06, 1949	12	-89.6	39.6	10	30	TD			La Nina
Not Named	Oct 17, 1949	0	-65.5	35.7	11	65	SS1			La Nina
Able	Aug 20, 1950	12	-72.9	36.5	1	110	SS3			Neutral
Charlie	Sep 04, 1950	0	-60.1	36.9	3	75	SS1			Neutral
Dog	Sep 11, 1950	12	-72.1	36.5	4	80	SS1			Neutral
Fox	Sep 17, 1950	0	-48.5	39.3	6	85	SS2		E	Neutral
George	Oct 04, 1950	6	-67.5	36.3	7	95	SS2			Neutral
Jig	Oct 16, 1950	12	-55	36.8	10	90	SS2			Neutral
Able	May 23, 1951	0	-69	36.5	1	70	SS1			El Nino
Baker	Aug 05, 1951	12	-60.8	36.2	2	35	TS			El Nino
Easy	Sep 11, 1951	6	-54.1	38.1	5	75	SS1			El Nino
Fox	Sep 09, 1951	6	-59.8	35.3	6	90	SS2			El Nino

Name	Date	Hour UTC	Longi-tude	Lati-tude	Yearly Storm #	Max Wind (kts)	SS Scale	Pres (mb)	Com-ment	ENSO
How	Oct 05, 1951	12	-71.3	37.1	8	90	SS2			El Nino
Not Named	Feb 04, 1952	6	-73.7	35.7	1	50	TS		E	Neutral
Able	Sep 01, 1952	0	-79.7	37.2	2	40	TS			Neutral
Baker	Sep 06, 1952	18	-68.6	35.8	3	95	SS2			Neutral
Charlie	Sep 27, 1952	18	-65.7	35.2	4	95	SS2			Neutral
Barbara	Aug 15, 1953	0	-72.3	39.3	2	75	SS1			Neutral
Not Named	Sep 03, 1953	0	-86	36.5	3	25	TD			Neutral
Carol	Sep 06, 1953	18	-70.6	35	4	80	SS1			Neutral
Dolly	Sep 12, 1953	18	-58.9	36.8	5	55	TS		E	Neutral
Edna	Sep 18, 1953	6	-63.6	34.8	6	95	SS2			Neutral
Florence	Sep 28, 1953	6	-73.4	35.4	8	35	TS		E	Neutral
Not Named	Oct 07, 1953	6	-66.5	38.8	10	60	TS		E	Neutral
Hazel	Oct 11, 1953	6	-67.3	35.4	12	50	TS		E	Neutral
Carol	Aug 31, 1954	6	-74.2	37.3	3	85	SS2			La Nina
Dolly	Sep 02, 1954	0	-69.3	34.6	4	75	SS1			La Nina
Edna	Sep 11, 1954	6	-74.4	36	5	100	SS3			La Nina
Hazel	Oct 15, 1954	18	-78.2	36.8	9	80	SS1	970	E	La Nina
Connie	Aug 13, 1955	6	-75.9	37.9	2	50	TS	974		La Nina
Diane	Aug 18, 1955	6	-79	37.7	3	55	TS	999		La Nina
Edith	Aug 30, 1955	12	-57.8	36.9	4	80	SS1			La Nina
Flora	Sep 08, 1955	6	-52.7	38	6	90	SS2			La Nina
Ione	Sep 20, 1955	12	-73.4	37	9	90	SS2			La Nina
Katie	Oct 19, 1955	18	-56.9	37.1	12	35	TS		E	La Nina
Betsy	Aug 17, 1956	12	-69.6	36.6	3	70	SS1			La Nina
Carla	Sep 10, 1956	12	-61.2	36	4	35	TS	996		La Nina
Flossy	Sep 28, 1956	6	-72.5	38.2	7	40	TS		E	La Nina
Not Named	Jun 15, 1957	0	-57.1	37	1	35	TS		E	El Nino
Audrey	Jun 29, 1957	6	-77.1	43.7	2	50	TS		E	El Nino
Frieda	Sep 25, 1957	12	-65.2	36.4	7	70	SS1	992		El Nino
Becky	Aug 17, 1958	0	-69.6	36.9	2	25	TD		E	Neutral
Cleo	Aug 19, 1958	6	-54.3	37.6	3	80	SS1	972		Neutral
Daisy	Aug 29, 1958	0	-74	36.2	4	110	SS3	963		Neutral
Helene	Sep 28, 1958	12	-70.5	36.9	8	105	SS3	954		Neutral
Ilsa	Sep 29, 1958	18	-54.9	37.1	9	80	SS1			Neutral
Janice	Oct 10, 1958	18	-63.9	36	10	80	SS1	970		Neutral
Not Named	Jun 19, 1959	18	-62.1	41.2	3	70	SS1		E	Neutral
Cindy	Jul 11, 1959	12	-70.3	41.2	4	50	TS			Neutral
Gracie	Sep 30, 1959	18	-81.7	37.7	8	40	TS		E	Neutral
Hannah	Oct 03, 1959	18	-63.8	35.9	9	100	SS3			Neutral
Not Named	Jun 28, 1960	18	-88.7	39.7	1	15	TD			Neutral
Brenda	Jul 30, 1960	6	-76.3	37	3	45	TS			Neutral
Cleo	Aug 20, 1960	0	-67.8	37.7	4	80	SS1			Neutral
Donna	Sep 12, 1960	12	-74.8	37.3	5	95	SS2	965		Neutral
Betsy	Sep 09, 1961	12	-58.6	36.6	2	90	SS2	978		Neutral
Carla	Sep 14, 1961	0	-90.5	38	3	30	TD		E	Neutral
Esther	Sep 20, 1961	18	-73	36.3	5	120	SS4	955		Neutral
Not Named	Sep 14, 1961	18	-76.8	36.7	6	35	TS			Neutral

Name	Date	Hour UTC	Longi-tude	Lati-tude	Yearly Storm #	Max Wind (kts)	SS Scale	Pres (mb)	Com-ment	ENSO
Frances	Oct 07, 1961	12	-64.5	35.5	7	110	SS3			Neutral
Gerda	Oct 20, 1961	18	-66.8	41.3	8	60	TS			Neutral
Alma	Aug 29, 1962	6	-70.4	40.1	1	85	SS2			Neutral
Celia	Sep 21, 1962	12	-52.6	38	3	25	TD		E	Neutral
Daisy	Oct 06, 1962	18	-67.5	34.5	4	95	SS2	968		Neutral
Ella	Oct 21, 1962	6	-66.3	36	5	75	SS1			Neutral
Arlene	Aug 10, 1963	6	-59	36.4	1	90	SS2			El Nino
Beulah	Aug 27, 1963	12	-52.3	38.4	2	70	SS1			El Nino
Not Named	Sep 12, 1963	18	-51	37.9	3	50	TS	992		El Nino
Flora	Oct 11, 1963	12	-57	36.2	7	85	SS2	963		El Nino
Ginny	Oct 29, 1963	0	-70.3	36.3	8	95	SS2			El Nino
Not Named	Jun 09, 1964	6	-65.9	36.6	1	50	TS			La Nina
Not Named	Aug 01, 1964	12	-53.5	37.7	2	45	TS			La Nina
Cleo	Sep 04, 1964	0	-56.9	38.7	5	75	SS1			La Nina
Dora	Sep 14, 1964	12	-71.5	38	6	55	TS		E	La Nina
Ethel	Sep 13, 1964	12	-63.1	35.5	7	85	SS2			La Nina
Gladys	Sep 23, 1964	12	-71.9	36.5	9	75	SS1	982		La Nina
Not Named	Jun 16, 1965	18	-74	37	1	25	TD		E	El Nino
Anna	Aug 24, 1965	18	-48.8	41.1	2	80	SS1			El Nino
Betsy	Sep 12, 1965	12	-86.5	38	3	20	TD		E	El Nino
Alma	Jun 13, 1966	12	-73.5	37.6	1	45	TS	1002		Neutral
Becky	Jul 02, 1966	12	-54.4	37.6	2	65	SS1	985		Neutral
Celia	Jul 21, 1966	0	-65.7	36.1	3	70	SS1	995		Neutral
Faith	Sep 02, 1966	0	-68	35.9	6	95	SS2	958		Neutral
Arlene	Sep 03, 1967	18	-52	43.3	1	75	SS1			La Nina
Chloe	Sep 16, 1967	6	-57.8	36.7	3	80	SS1			La Nina
Doria	Sep 13, 1967	18	-64.9	37.1	4	75	SS1	983		La Nina
Heidi	Oct 30, 1967	18	-46.5	39.5	8	60	TS			La Nina
Candy	Jun 25, 1968	12	-90	40	3	25	TD			Neutral
Dolly	Aug 14, 1968	12	-51.3	39.8	4	70	SS1	992		Neutral
Subtrop 1	Sep 18, 1968	0	-62	38.5	6	60	TS	993	S	Neutral
Gladys	Oct 20, 1968	18	-72	37	8	70	SS1	981		Neutral
Anna	Aug 03, 1969	18	-65.6	40.9	1	55	TS	1002		El Nino
Blanche	Aug 11, 1969	18	-69.9	35.5	2	75	SS1	997		El Nino
Camille	Aug 22, 1969	0	-61.4	39.2	3	60	TS			El Nino
Debbie	Aug 23, 1969	6	-56.7	36.7	4	100	SS3			El Nino
Gerda	Sep 09, 1969	12	-72.2	37.8	7	110	SS3	984		El Nino
Not Named	Sep 24, 1969	12	-66	37	10	65	SS1	987		El Nino
Not Named	Sep 29, 1969	12	-41	43.5	11	60	TS	990		El Nino
Kara	Oct 18, 1969	0	-50.8	43.3	14	90	SS2			El Nino
Not Named	Oct 31, 1969	12	-54	39.5	17	55	TS	988	S	El Nino
Not Named	Aug 18, 1970	18	-58.5	42.5	4	60	TS	992		La Nina
Not Named	Oct 17, 1970	12	-61	39	9	90	SS2	974		La Nina
Arlene	Jul 06, 1971	18	-65.9	40.7	1	55	TS	1000		La Nina
Not Named	Aug 06, 1971	12	-49	46	2	75	SS1	974		La Nina
Beth	Aug 15, 1971	12	-67.2	39.7	3	75	SS1	977		La Nina
Doria	Aug 28, 1971	0	-76.5	36.5	5	55	TS			La Nina

Name	Date	Hour UTC	Longi-tude	Lati-tude	Yearly Storm #	Max Wind (kts)	SS Scale	Pres (mb)	Com-ment	ENSO
Heidi	Sep 14, 1971	0	-69.9	37.1	9	55	TS			La Nina
Agnes	Jun 22, 1972	12	-73.1	38.2	2	60	TS	977		El Nino
Betty	Aug 22, 1972	12	-64	36.5	3	30	TD		S	El Nino
Carrie	Sep 03, 1972	18	-70.2	40.6	4	60	TS	993		El Nino
Charlie	Sep 21, 1972	0	-45.4	42.8	6	55	TS		S	El Nino
Alice	Jul 05, 1973	6	-64.7	35.8	1	65	SS1			La Nina
Alfa	Jul 31, 1973	12	-70.8	37.5	2	40	TS		S	La Nina
Ellen	Sep 22, 1973	12	-45.2	42.1	6	100	SS3			La Nina
Gilda	Oct 26, 1973	18	-67.8	36.2	8	60	TS		S	La Nina
Subtrop 2	Jul 18, 1974	12	-58.4	39	2	45	TS	1006	S	Neutral
Subtrop 3	Aug 14, 1974	12	-64	41.5	3	50	TS	992	S	Neutral
Becky	Aug 30, 1974	6	-61.8	37.3	5	100	SS3			Neutral
Dolly	Sep 04, 1974	12	-72.1	35.5	7	45	TS			Neutral
Elaine	Sep 12, 1974	6	-61.9	36.3	8	45	TS			Neutral
Subtrop 4	Oct 08, 1974	18	-67.4	35.5	11	30	TD		E	Neutral
Amy	Jul 01, 1975	12	-68.3	36.2	1	60	TS	984		La Nina
Blanche	Jul 27, 1975	18	-68	37.9	2	75	SS1	981		La Nina
Faye	Sep 27, 1975	12	-65.7	36.1	6	90	SS2	982		La Nina
Gladys	Oct 02, 1975	12	-69.8	35.3	7	120	SS4	939		La Nina
Belle	Aug 09, 1976	18	-74.2	36.6	3	90	SS2	970		El Nino
Candice	Aug 22, 1976	18	-56.4	41.3	4	80	SS1	964		El Nino
Clara	Sep 11, 1977	12	-61.5	36	3	45	TS	1001	E	Neutral
Dorothy	Sep 29, 1977	0	-57	38.3	4	75	SS1	980		Neutral
Evelyn	Oct 15, 1977	6	-61.5	42.4	5	70	SS1	996		Neutral
Ella	Sep 04, 1978	12	-63	40	6	120	SS4	956		Neutral
Kendra	Nov 01, 1978	18	-60.5	38	12	40	TS	1002	E	Neutral
Bob	Jul 13, 1979	0	-86.5	38.5	2	25	TD	1006		Neutral
Claudette	Jul 28, 1979	18	-88	38.8	3	15	TD	1009		Neutral
David	Sep 08, 1979	0	-52.5	52.5	4	60	TS	985	E	Neutral
Frederic	Sep 14, 1979	6	-84.5	37	6	35	TS	996		Neutral
Subtrop 1	Oct 24, 1979	18	-62	40.5	9	65	SS1	985	S	Neutral
Charley	Aug 23, 1980	6	-66.7	38.9	3	70	SS1	990		Neutral
Frances	Sep 18, 1980	12	-46.2	39	6	80	SS1	970		Neutral
Georges	Sep 08, 1980	0	-59	40.2	7	70	SS1	993		Neutral
Bret	Jun 29, 1981	12	-65	36	2	35	TS	1012	S	Neutral
Cindy	Aug 04, 1981	0	-63.8	39	3	50	TS	1002		Neutral
Dennis	Aug 21, 1981	0	-70.4	37.1	4	70	SS1	995		Neutral
Emily	Sep 05, 1981	18	-59.9	39.4	5	80	SS1	966		Neutral
Subtrop 3	Nov 15, 1981	12	-71.8	37.2	12	60	TS	979	S	Neutral
Subtrop 1	Jun 19, 1982	18	-73	37.1	2	60	TS	992	S	El Nino
Debby	Sep 18, 1982	0	-62.3	38.8	5	115	SS4	950		El Nino
Chantal	Sep 14, 1983	6	-53.8	37.4	3	40	TS	1006		Neutral
Subtrop 1	Aug 20, 1984	12	-48.3	43.7	1	50	TS	1001	S	Neutral
Cesar	Sep 02, 1984	12	-50.4	46	4	50	TS	994		Neutral
Diana	Sep 15, 1984	6	-72.7	37.2	5	60	TS	994		Neutral
Hortense	Oct 01, 1984	12	-54	40	9	50	TS	998		Neutral
Isidore	Oct 01, 1984	0	-67.7	35.8	10	30	TD	1007		Neutral

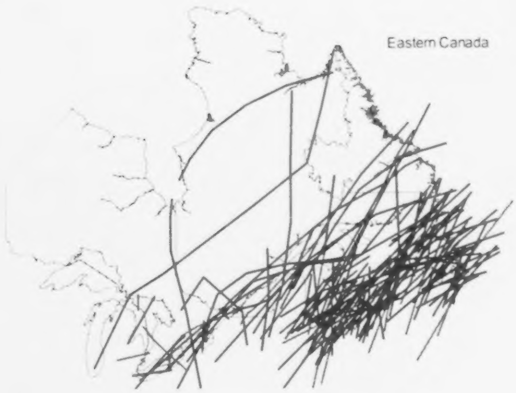
Name	Date	Hour UTC	Longi-tude	Lati-tude	Yearly Storm #	Max Wind (kts)	SS Scale	Pres (mb)	Com-ment	ENSO
Josephine	Oct 15, 1984	6	-68.4	36.2	11	65	SS1	966		Neutral
Klaus	Nov 13, 1984	6	-51	38	12	55	TS	987	S	Neutral
Ana	Jul 19, 1985	0	-60.3	44.2	1	60	TS	996		Neutral
Bob	Jul 25, 1985	18	-80.1	36.6	2	30	TD	1009		Neutral
Danny	Aug 19, 1985	12	-75.3	37.5	4	25	TD	1012	E	Neutral
Gloria	Sep 27, 1985	6	-75.5	35.5	7	90	SS2	942		Neutral
Henri	Sep 24, 1985	0	-74	37.4	8	40	TS	1004		Neutral
Andrew	Jun 08, 1986	6	-72.7	36.3	1	45	TS	1002		El Nino
Charley	Aug 18, 1986	6	-75.2	37.4	3	65	SS1	990		El Nino
Earl	Sep 18, 1986	12	-48.4	38.3	5	65	SS1	989		El Nino
Emily	Sep 26, 1987	0	-55	38	6	75	SS1	976		El Nino
Alberto	Aug 07, 1988	12	-69	41.5	1	35	TS	1002		La Nina
Chris	Aug 30, 1988	12	-65	45	3	25	TD	1008		La Nina
Gilbert	Sep 19, 1988	18	-89.9	40.2	8	25	TD	998	E	La Nina
Keith	Nov 26, 1988	0	-43	48	12	65	SS1	950	E	La Nina
Dean	Aug 07, 1989	6	-64.5	35.6	4	90	SS2	969		Neutral
Felix	Sep 07, 1989	12	-47.6	39.3	6	55	TS	992		Neutral
Gabrielle	Sep 08, 1989	18	-59.7	36.4	7	80	SS1	970		Neutral
Hugo	Sep 22, 1989	12	-81.7	35.9	8	55	TS	975		Neutral
Bertha	Jul 31, 1990	0	-67	36.6	2	70	SS1	974		Neutral
Gustav	Sep 01, 1990	18	-52	38	7	80	SS1	974		Neutral
Isidore	Sep 15, 1990	6	-47.2	38.7	9	65	SS1	987		Neutral
Lili	Oct 14, 1990	0	-71.3	36.6	12	50	TS	996		Neutral
Ana	Jul 04, 1991	6	-67.8	37.1	1	45	TS	1002		El Nino
Bob	Aug 19, 1991	6	-74.5	36.5	2	100	SS3	950		El Nino
Unnamed	Nov 01, 1991	18	-66.5	38.2	8	65	SS1	980		El Nino
Danielle	Sep 25, 1992	18	-75.4	37	5	55	TS	1007		Neutral
Frances	Oct 25, 1992	12	-53.7	37.7	7	65	SS1	982		Neutral
Emily	Sep 01, 1993	12	-72.7	37.5	5	95	SS2	965		Neutral
Floyd	Sep 09, 1993	18	-58.3	41.7	6	65	SS1	990		Neutral
Harvey	Sep 21, 1993	0	-52.5	37.8	8	60	TS	992		Neutral
Beryl	Aug 17, 1994	18	-81.5	37.5	2	15	TD	1011		Neutral
Chris	Aug 23, 1994	12	-55.5	42.2	3	45	TS	1003		Neutral
Allison	Jun 08, 1995	0	-67.7	41	1	50	TS	982	E	Neutral
Barry	Jul 08, 1995	12	-68.2	35.9	2	50	TS	997		Neutral
Chantal	Jul 19, 1995	0	-65.8	35.4	3	50	TS	997		Neutral
Erin	Aug 06, 1995	0	-86.8	38.4	5	20	TD	1003		Neutral
Felix	Aug 18, 1995	18	-68.9	36.9	6	70	SS1	971		Neutral
Iris	Sep 03, 1995	12	-57.5	36.9	9	75	SS1	982		Neutral
Luis	Sep 10, 1995	0	-67.2	34.5	12	85	SS2	959		Neutral
Marilyn	Sep 20, 1995	6	-56.1	35.8	13	75	SS1	976		Neutral
Opal	Oct 05, 1995	18	-83.5	38.5	15	40	TS	986	E	Neutral
Arthur	Jun 21, 1996	18	-56.2	37.8	1	45	TS	1000	E	Neutral
Bertha	Jul 13, 1996	6	-77	36.7	2	60	TS	993		Neutral
Edouard	Sep 01, 1996	12	-70.2	36.5	5	95	SS2	958		Neutral
Fran	Sep 06, 1996	12	-79	36.7	6	40	TS	985		Neutral
Hortense	Sep 14, 1996	6	-68.4	35.9	8	90	SS2	955		Neutral

Name	Date	Hour UTC	Longi-tude	Lati-tude	Yearly Storm #	Max Wind (kts)	SS Scale	Pres (mb)	Com-ment	ENSO
Josephine	Oct 08, 1996	18	-76	36	10	45	TS	986	E	Neutral
Subtrop	Jun 01, 1997	18	-74.1	35.5	1	45	TS	1004	S	El Nino
Ana	Jul 03, 1997	18	-67.5	36.1	2	30	TD	1002		El Nino
Bill	Jul 12, 1997	12	-61.1	37.9	3	65	SS1	987		El Nino
Claudette	Jul 15, 1997	12	-69.3	36.2	4	40	TS	1009		El Nino
Danny	Jul 25, 1997	0	-73.5	37.5	5	50	TS	996		El Nino
Bonnie	Aug 28, 1998	18	-73.2	37.3	2	60	TS	991		La Nina
Danielle	Sep 02, 1998	12	-65.4	36	4	70	SS1	975		La Nina
Earl	Sep 06, 1998	12	-52	49	5	55	TS	964	E	La Nina
Mitch	Nov 07, 1998	18	-42	44.5	13	60	TS	972	E	La Nina
Cindy	Aug 31, 1999	6	-50.6	38.2	3	60	TS	990		La Nina
Dennis	Sep 06, 1999	18	-79.5	37.7	4	20	TD	1008		La Nina
Floyd	Sep 16, 1999	12	-76.8	35.7	6	70	SS1	967		La Nina
Gert	Sep 22, 1999	6	-60.4	36.2	7	75	SS1	961		La Nina
Irene	Oct 18, 1999	12	-71.6	36.8	9	90	SS2	960		La Nina
Jose	Oct 25, 1999	0	-58.1	34.9	10	60	TS	990		La Nina
Alberto	Aug 21, 2000	12	-47.2	38.9	1	80	SS1	977		La Nina
Florence	Sep 16, 2000	18	-61.8	36.1	6	70	SS1	985		La Nina
Gordon	Sep 20, 2000	12	-69.5	42	7	30	TD	1005	E	La Nina
Helene	Sep 25, 2000	6	-62.2	41.6	8	60	TS	986		La Nina
Isaac	Sep 30, 2000	18	-49.8	38.3	9	70	SS1	985		La Nina
Leslie	Oct 07, 2000	12	-68.3	35.4	12	40	TS	1006		La Nina
Michael	Oct 19, 2000	18	-58.5	44	13	85	SS2	965		La Nina
Subtrop	Oct 28, 2000	18	-65.5	38	15	55	TS	984	S	La Nina

CANADA STATISTICS

Map - Eastern Canada

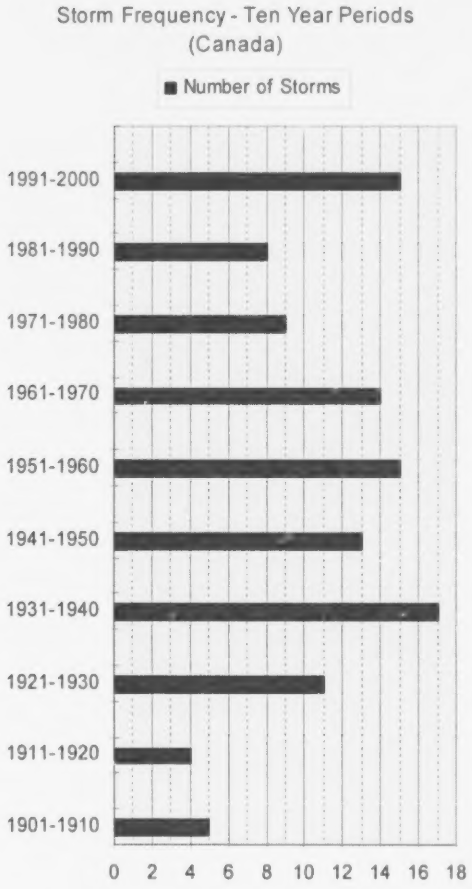
Eastern Canada
Quebec
Labrador
Ontario
Newfoundland
New Brunswick
Prince Edward Island
Nova Scotia

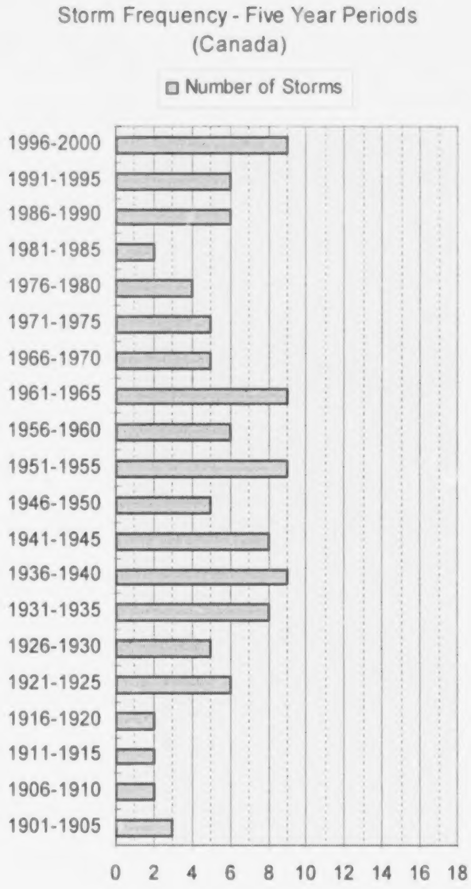

Eastern Canada

Summary Statistics

100 Yr	TD	TS	G	S	S1	S2	S3	S4	S5	H	<H	ALL	Sys-Spd
#	14	64	30	34	28	5	0	0	0	33	78	111	28.6
Return	7.1	1.6	3.3	2.9	3.6	20	NA	NA	NA	3	1.3	0.9	
50 Yr	**TD**	**TS**	**G**	**S**	**S1**	**S2**	**S3**	**S4**	**S5**	**H**	**<H**	**ALL**	**Sys-Spd**
#	8	34	14	20	16	3	0	0	0	19	42	61	30.0
Return	6.3	1.5	3.6	2.5	3.1	16.7	NA	NA	NA	2.6	1.2	0.8	

Decadal and Five Year Frequency

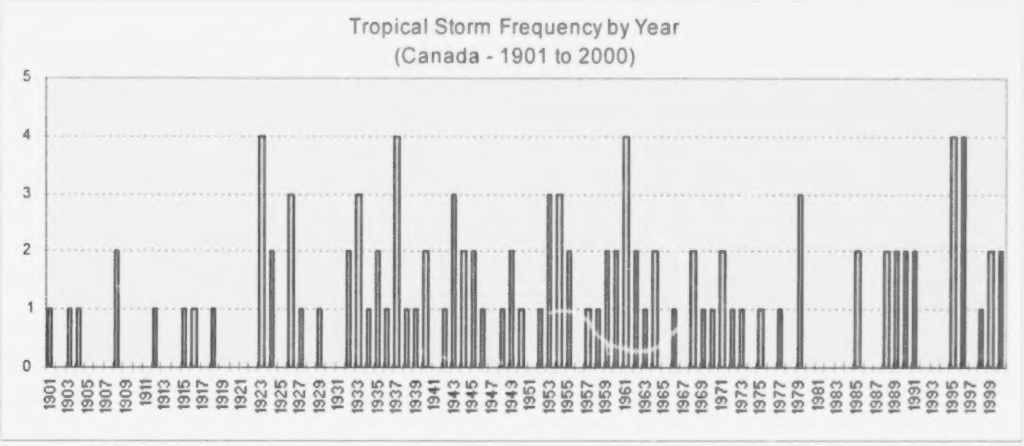

Storm Frequency - Ten Year Periods (Canada)


Storm Frequency - Five Year Periods (Canada)

10-Year Period	Number of Storms	5-Year Period	Number of Storms
1901-1910	5	1901-1905	3
		1906-1910	2
1911-1920	4	1911-1915	2
		1916-1920	2
1921-1930	11	1921-1925	6
		1926-1930	5
1931-1940	17	1931-1935	8
		1936-1940	9
1941-1950	13	1941-1945	8
		1946-1950	5
1951-1960	15	1951-1955	9
		1956-1960	6

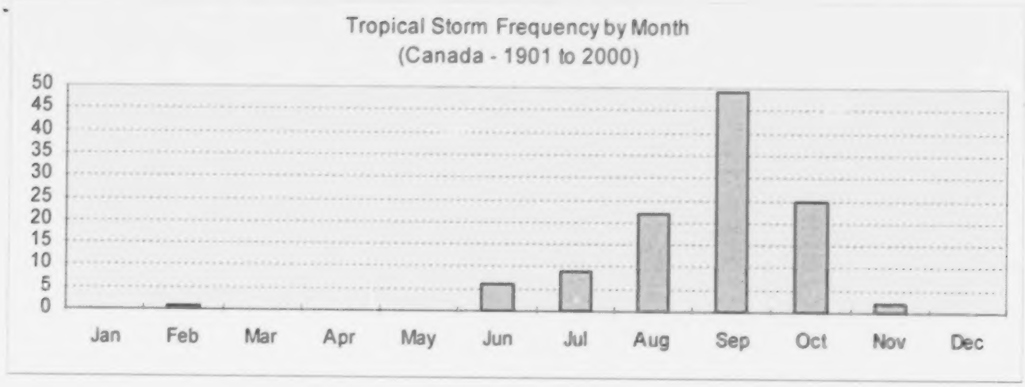
10-Year Period	Number of Storms	5-Year Period	Number of Storms
1961-1970	14	1961-1965	9
		1966-1970	5
1971-1980	9	1971-1975	5
		1976-1980	4
1981-1990	8	1981-1985	2
		1986-1990	6
1991-2000	15	1991-1995	6
		1996-2000	9

Yearly Frequency



Year	#	Year	#	Year	#	Year	#	Year	#
1901	1	1921	0	1941	0	**1961**	**4**	1981	0
1902	0	1922	0	1942	1	1962	2	1982	0
1903	1	**1923**	**4**	1943	3	1963	1	1983	0
1904	1	1924	2	1944	2	1964	2	1984	0
1905	0	1925	0	1945	2	1965	0	1985	2
1906	0	1926	3	1946	1	1966	1	1986	0
1907	0	1927	1	1947	0	1967	0	1987	0
1908	2	1928	0	1948	1	1968	2	1988	2
1909	0	1929	1	1949	2	1969	1	1989	2
1910	0	1930	0	1950	1	1970	1	1990	2
1911	0	1931	0	1951	0	1971	2	1991	2
1912	1	1932	2	1952	1	1972	1	1992	0
1913	0	1933	3	1953	3	1973	1	1993	0
1914	0	1934	1	1954	3	1974	0	1994	0
1915	1	1935	2	1955	2	1975	1	**1995**	**4**
1916	1	1936	1	1956	0	1976	0	**1996**	**4**
1917	0	**1937**	**4**	1957	1	1977	1	1997	0
1918	1	1938	1	1958	1	1978	0	1998	1
1919	0	1939	1	1959	2	1979	3	1999	2
1920	0	1940	2	1960	2	1980	0	2000	2

Monthly Frequency

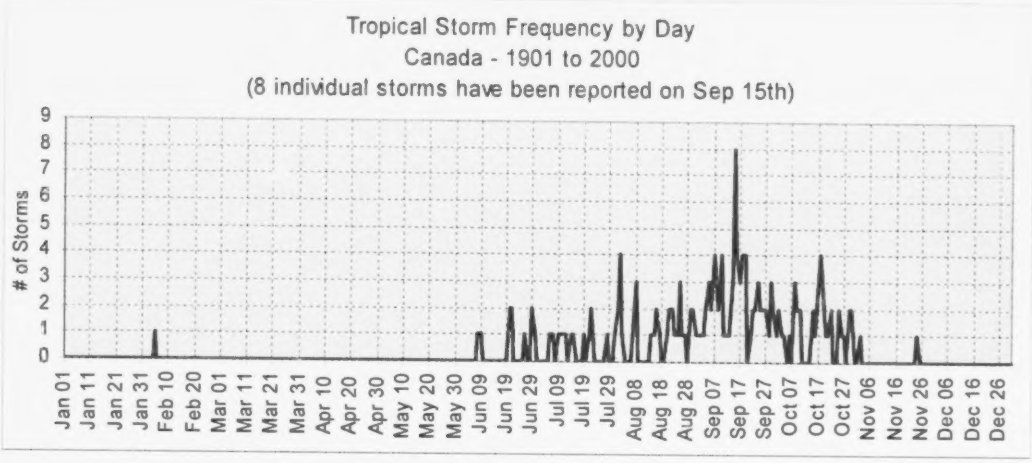


Note: Storms that span months were counted in both months

February	#	June	#	July	#	August	#	September	#	October	#	November	#
1952	1	1934	1	1916	1	1908	1	1901	1	1901	1	1912	1
		1945	1	1959	1	1915	1	1903	1	1929	1	1991	1
		1957	1	1960	1	1924	1	1904	1	1933	1		
		1959	1	1966	1	1927	1	1908	1	1935	1		
		1968	1	1973	1	1933	1	1918	1	1939	1		
		1995	1	1975	1	1935	1	1923	1	1943	1		
				1985	1	1937	1	1924	1	1944	1		
				1995	1	1949	1	1926	1	1953	1		
				1996	1	1950	1	1933	1	1954	1		
						1953	1	1936	1	1961	1		
						1954	1	1938	1	1963	1		
						1955	1	1942	1	1968	1		
						1960	1	1944	1	1970	1		
						1989	1	1945	1	1977	1		
						1990	1	1946	1	1979	1		
						1991	1	1948	1	1990	1		
						1926	2	1949	1	1995	1		
						1971	2	1953	1	1996	1		
						1988	2	1955	1	1962	2		
								1958	1	2000	2		
								1960	1	1923	3		
								1969	1				
								1972	1				
								1985	1				
								1989	1				
								1995	1				
								1998	1				
								1932	2				
								1940	2				
								1943	2				
								1954	2				
								1964	2				

February	#	June	#	July	#	August	#	September	#	October	#	November	#
								1979	2				
								1996	2				
								1999	2				
								1937	3				
								1961	3				
Total	1	Total	6	Total	9	Total	22	Total	49	Total	25	Total	2

Daily Frequency


Tropical Storm Frequency by Day
Canada - 1901 to 2000
(8 individual storms have been reported on Sep 15th)

Notes:

1. Storms will generally span more than one day. The storm is counted in each day
2. There was one storm on Feb 5th, 1952 which is not included in the table below.

Day	#	Day	#	Day	#	Day	#	Day	#	Day	#
Jun 01	0	Jul 01	0	Aug 01	2	Sep 01	1	Oct 01	1	Nov 01	0
Jun 02	0	Jul 02	0	Aug 02	4	Sep 02	1	Oct 02	2	Nov 02	1
Jun 03	0	Jul 03	0	Aug 03	1	Sep 03	1	Oct 03	1	Nov 03	0
Jun 04	0	Jul 04	0	Aug 04	0	Sep 04	2	Oct 04	1	Nov 04	0
Jun 05	0	Jul 05	0	Aug 05	0	Sep 05	3	Oct 05	0	Nov 05	0
Jun 06	0	Jul 06	1	Aug 06	0	Sep 06	2	Oct 06	1	Nov 06	0
Jun 07	0	Jul 07	1	Aug 07	1	Sep 07	4	Oct 07	0	Nov 07	0
Jun 08	1	Jul 08	0	Aug 08	3	Sep 08	3	Oct 08	3	Nov 08	0
Jun 09	1	Jul 09	1	Aug 09	0	Sep 09	2	Oct 09	2	Nov 09	0
Jun 10	0	Jul 10	1	Aug 10	0	Sep 10	4	Oct 10	2	Nov 10	0
Jun 11	0	Jul 11	1	Aug 11	0	Sep 11	1	Oct 11	0	Nov 11	0
Jun 12	0	Jul 12	1	Aug 12	0	Sep 12	1	Oct 12	0	Nov 12	0
Jun 13	0	Jul 13	0	Aug 13	0	Sep 13	1	Oct 13	0	Nov 13	0
Jun 14	0	Jul 14	1	Aug 14	1	Sep 14	3	Oct 14	0	Nov 14	0
Jun 15	0	Jul 15	1	Aug 15	1	**Sep 15**	**8**	Oct 15	2	Nov 15	0
Jun 16	0	Jul 16	0	Aug 16	2	Sep 16	4	Oct 16	1	Nov 16	0
Jun 17	0	Jul 17	0	Aug 17	1	Sep 17	3	Oct 17	3	Nov 17	0

Day	#	Day	#	Day	#	Day	#	Day	#	Day	#
Jun 18	0	Jul 18	0	Aug 18	0	Sep 18	4	Oct 18	4	Nov 18	0
Jun 19	0	Jul 19	1	Aug 19	0	Sep 19	4	Oct 19	2	Nov 19	0
Jun 20	2	Jul 20	0	Aug 20	1	Sep 20	0	Oct 20	1	Nov 20	0
Jun 21	2	Jul 21	1	Aug 21	2	Sep 21	1	Oct 21	1	Nov 21	0
Jun 22	0	Jul 22	2	Aug 22	2	Sep 22	2	Oct 22	2	Nov 22	0
Jun 23	0	Jul 23	0	Aug 23	1	Sep 23	2	Oct 23	0	Nov 23	0
Jun 24	0	Jul 24	0	Aug 24	1	Sep 24	3	Oct 24	0	Nov 24	1
Jun 25	0	Jul 25	0	Aug 25	3	Sep 25	2	Oct 25	2	Nov 25	0
Jun 26	1	Jul 26	0	Aug 26	1	Sep 26	2	Oct 26	1	Nov 26	0
Jun 27	0	Jul 27	0	Aug 27	1	Sep 27	2	Oct 27	1	Nov 27	0
Jun 28	0	Jul 28	1	Aug 28	0	Sep 28	1	Oct 28	0	Nov 28	0
Jun 29	2	Jul 29	0	Aug 29	2	Sep 29	3	Oct 29	2	Nov 29	0
Jun 30	1	Jul 30	0	Aug 30	2	Sep 30	2	Oct 30	2	Nov 30	0
		Jul 31	1	Aug 31	1			Oct 31	0		

Table: storm name, year, maximum wind over Canada, etc.

Name	Date	Storm #	MaxWind (kts)	SS Scale	AvgSysSpd (kts)	Pres (mb)	Comment	ENSO
Not Named	Oct 01, 1901	8	35	TS	25.6		E	Neutral
Not Named	Sep 17, 1903	4	40	TS	18.1		E	La Nina
Not Named	Sep 15, 1904	2	65	SS1	59.8		E	El Nino
Not Named	Aug 02, 1908	2	75	SS1	24.9		E	La Nina
Not Named	Sep 18, 1908	4	60	TS	22.2		E	La Nina
Not Named	Nov 24, 1912	6	55	TS	43.2		E	Neutral
Not Named	Aug 22, 1915	2	35	TS	15.5		E	Neutral
Not Named	Jul 22, 1916	2	55	TS	36.4			La Nina
Not Named	Sep 06, 1918	4	55	TS	19.2			El Nino
Not Named	Sep 10, 1923	1	55	TS	20.1		E	Neutral
Not Named	Oct 02, 1923	2	70	SS1	20.2		E	Neutral
Not Named	Oct 25, 1923	4	35	TS	20.0		E	Neutral
Not Named	Oct 19, 1923	6	25	TD	32.3		E	Neutral
Not Named	Aug 27, 1924	2	85	SS2	32.2		E	La Nina
Not Named	Sep 05, 1924	3	65	SS1	26.9		E	La Nina
Not Named	Aug 01, 1926	1	25	TD	16.9		E	Neutral
Not Named	Aug 08, 1926	2	70	SS1	25.8		E	Neutral
Not Named	Sep 23, 1926	4	55	TS	15.9		E	Neutral
Not Named	Aug 24, 1927	1	90	SS2	50.6		E	Neutral
Not Named	Oct 03, 1929	2	30	TD	30.1		E	El Nino
Not Named	Sep 04, 1932	3	20	TD	22.4			Neutral
Not Named	Sep 17, 1932	5	35	TS	25.0		E	Neutral
Not Named	Aug 25, 1933	8	30	TD	12.8			Neutral
Not Named	Sep 18, 1933	13	60	TS	17.8		E	Neutral
Not Named	Oct 29, 1933	20	60	TS	13.0		E	Neutral
Not Named	Jun 20, 1934	2	40	TS	18.7		E	Neutral
Not Named	Aug 25, 1935	1	65	SS1	9.4		E	Neutral
Not Named	Oct 02, 1935	4	60	TS	41.2		E	Neutral
Not Named	Sep 25, 1936	15	75	SS1	26.0		E	Neutral
Not Named	Aug 02, 1937	1	40	TS	12.2			Neutral
Not Named	Sep 14, 1937	4	55	TS	26.5			Neutral

Name	Date	Storm #	MaxWind (kts)	SS Scale	AvgSysSpd (kts)	Pres (mb)	Comment	ENSO
Not Named	Sep 26, 1937	7	75	SS1	26.3		E	Neutral
Not Named	Sep 30, 1937	8	35	TS	26.5		E	Neutral
Not Named	Sep 22, 1938	4	70	SS1	24.8	967	E	La Nina
Not Named	Oct 18, 1939	4	80	SS1	35.2			Neutral
Not Named	Sep 03, 1940	4	55	TS	24.3			El Nino
Not Named	Sep 17, 1940	5	65	SS1	17.9			El Nino
Not Named	Sep 24, 1942	5	35	TS	20.9		E	La Nina
Not Named	Sep 09, 1943	4	60	TS	34.7			Neutral
Not Named	Sep 16, 1943	5	40	TS	25.0		E	Neutral
Not Named	Oct 17, 1943	9	35	TS	34.2		E	Neutral
Not Named	Sep 15, 1944	7	35	TS	40.8		E	La Nina
Not Named	Oct 22, 1944	11	45	TS	32.7		E	La Nina
Not Named	Jun 29, 1945	1	40	TS	22.8		E	Neutral
Not Named	Sep 19, 1945	9	25	TD	32.2		E	Neutral
Not Named	Sep 15, 1946	4	55	TS	33.2		E	Neutral
Not Named	Sep 02, 1948	3	50	TS	38.3		E	Neutral
Not Named	Aug 29, 1949	2	35	TS	32.0		E	La Nina
Not Named	Sep 10, 1949	4	65	SS1	36.9		E	La Nina
Able	Aug 21, 1950	1	35	TS	25.4			Neutral
Not Named	Feb 05, 1952	1	45	TS	30.5		E	Neutral
Barbara	Aug 16, 1953	2	55	TS	41.7		E	Neutral
Carol	Sep 07, 1953	4	65	SS1	30.8			Neutral
Not Named	Oct 08, 1953	10	60	TS	25.0		E	Neutral
Carol	Aug 31, 1954	3	75	SS1	29.2	976	E	La Nina
Edna	Sep 12, 1954	5	65	SS1	31.3		E	La Nina
Hazel	Oct 16, 1954	9	70	SS1	23.4		E	La Nina
Connie	Aug 14, 1955	2	30	TD	11.8	998		La Nina
Ione	Sep 21, 1955	9	45	TS	19.4		E	La Nina
Audrey	Jun 29, 1957	2	50	TS	51.6		E	El Nino
Helene	Sep 29, 1958	8	65	SS1	38.5	966		Neutral
Not Named	Jun 20, 1959	3	70	SS1	17.4		E	Neutral
Cindy	Jul 11, 1959	4	50	TS	29.5		E	Neutral
Brenda	Jul 31, 1960	3	40	TS	35.2			Neutral
Donna	Sep 13, 1960	5	60	TS	38.4		E	Neutral
Carla	Sep 14, 1961	3	30	TD	34.5		E	Neutral
Esther	Sep 26, 1961	5	30	TD	18.5			Neutral
Not Named	Sep 15, 1961	6	35	TS	60.6			Neutral
Frances	Oct 09, 1961	7	40	TS	22.1		E	Neutral
Daisy	Oct 08, 1962	4	65	SS1	14.6			Neutral
Ella	Oct 22, 1962	5	60	TS	32.4		E	Neutral
Ginny	Oct 29, 1963	8	95	SS2	29.1	958		El Nino
Dora	Sep 15, 1964	6	55	TS	28.0		E	La Nina
Gladys	Sep 24, 1964	9	60	TS	46.8	990	E	La Nina
Celia	Jul 21, 1966	3	65	SS1	32.6	998		Neutral
Candy	Jun 26, 1968	3	25	TD	27.0		E	Neutral
Gladys	Oct 21, 1968	8	65	SS1	25.0	975	E	Neutral
Gerda	Sep 10, 1969	7	95	SS2	45.8	979		El Nino
Not Named	Oct 17, 1970	9	70	SS1	55.2	980		La Nina
Beth	Aug 16, 1971	3	65	SS1	16.0	984		La Nina
Doria	Aug 29, 1971	5	35	TS	24.2		E	La Nina
Carrie	Sep 04, 1972	4	50	TS	10.0		E	El Nino
Alice	Jul 06, 1973	1	60	TS	36.9	991		La Nina
Blanche	Jul 28, 1975	2	70	SS1	33.5	980		La Nina
Evelyn	Oct 15, 1977	5	70	SS1	19.0	998		Neutral
David	Sep 07, 1979	4	55	TS	35.1	986	E	Neutral

Name	Date	Storm #	MaxWind (kts)	SS Scale	AvgSysSpd (kts)	Pres (mb)	Comment	ENSO
Frederic	Sep 14, 1979	6	30	TD	78.7	998	E	Neutral
Subtrop 1	Oct 25, 1979	9	50	TS	41.5	982	S	Neutral
Ana	Jul 19, 1985	1	55	TS	29.1	996	E	Neutral
Gloria	Sep 28, 1985	7	50	TS	25.8	986	E	Neutral
Alberto	Aug 07, 1988	1	35	TS	27.9	1002		La Nina
Chris	Aug 30, 1988	3	25	TD	38.1	1008		La Nina
Dean	Aug 08, 1989	4	55	TS	32.0	991		Neutral
Hugo	Sep 23, 1989	8	40	TS	24.2	990	E	Neutral
Bertha	Aug 02, 1990	2	70	SS1	21.2	973		Neutral
Lili	Oct 15, 1990	12	40	TS	37.9	994	E	Neutral
Bob	Aug 20, 1991	2	60	TS	23.9	977		El Nino
Unnamed	Nov 02, 1991	8	50	TS	24.1	996		El Nino
Allison	Jun 08, 1995	1	45	TS	24.5	993	E	Neutral
Barry	Jul 09, 1995	2	50	TS	22.7	991		Neutral
Luis	Sep 11, 1995	12	80	SS1	57.6	963		Neutral
Opal	Oct 06, 1995	15	40	TS	19.2	991	E	Neutral
Bertha	Jul 14, 1996	2	55	TS	31.9	995		Neutral
Fran	Sep 07, 1996	6	30	TD	10.3	1000		Neutral
Hortense	Sep 15, 1996	8	70	SS1	18.0	970		Neutral
Josephine	Oct 09, 1996	10	45	TS	29.6	980	E	Neutral
Earl	Sep 05, 1998	5	50	TS	16.2	986	E	La Nina
Dennis	Sep 08, 1999	4	20	TD	8.2	1006	E	La Nina
Floyd	Sep 18, 1999	6	40	TS	21.8	987	E	La Nina
Leslie	Oct 08, 2000	12	40	TS	34.4	1003	E	La Nina
Michael	Oct 19, 2000	13	85	SS2	31.4	965		La Nina

PROVINCIAL STATISTICS

Map - Eastern Canadian Provinces

Quebec
Labrador
Ontario
Newfoundland
New Brunswick
Prince Edward Island
Nova Scotia

Summary Statistics (all provinces; 50 and 100 year)

100 Year

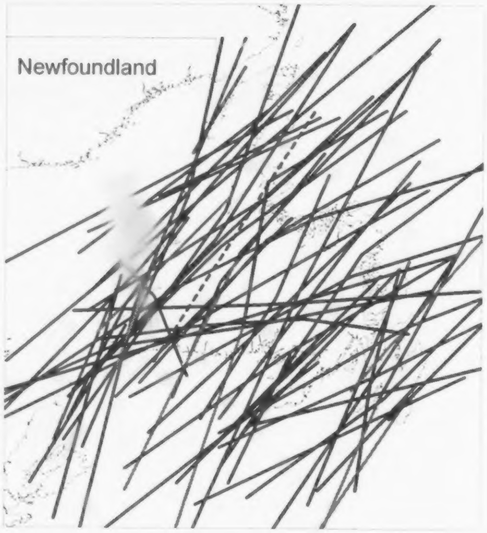
Province	TD	TS	G	S	S1	S2	S3	S4	S5	H	<H	ALL	Avg Sys Spd
Labrador	3	9	2	7	1	0	0	0	0	1	12	13	29.7
Newfoundland	2	43	19	24	12	2	0	0	0	14	45	59	30.2
Nova Scotia	2	19	9	10	16	3	0	0	0	19	21	40	27.3
Prince Edward Island	0	13	7	6	1	3	0	0	0	4	13	17	28.7
New Brunswick	5	21	11	10	2	2	0	0	0	4	26	30	32.6
Quebec	11	17	9	8	2	1	0	0	0	3	28	31	28.7
Ontario	9	7	6	1	1	0	0	0	0	1	16	17	23.9

50 Year

Province	TD	TS	G	S	S1	S2	S3	S4	S5	H	<H	ALL	Avg Sys Spd
Labrador	2	8	2	6	1	0	0	0	0	1	10	11	31.3
Newfoundland	1	22	9	13	5	1	0	0	0	6	23	29	31.9
Nova Scotia	1	8	4	4	9	1	0	0	0	10	9	19	24.6
Prince Edward Island	0	10	5	5	0	1	0	0	0	1	10	11	25.2
New Brunswick	2	12	5	7	2	2	0	0	0	4	14	18	33.9
Quebec	6	11	4	7	1	1	0	0	0	2	17	19	32
Ontario	5	3	2	1	1	0	0	0	0	1	8	9	27

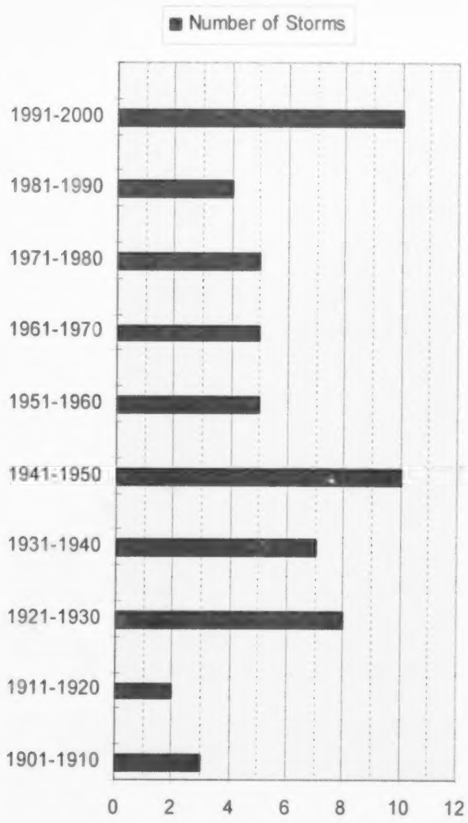
Newfoundland (Island only) - Storm Frequencies

Newfoundland

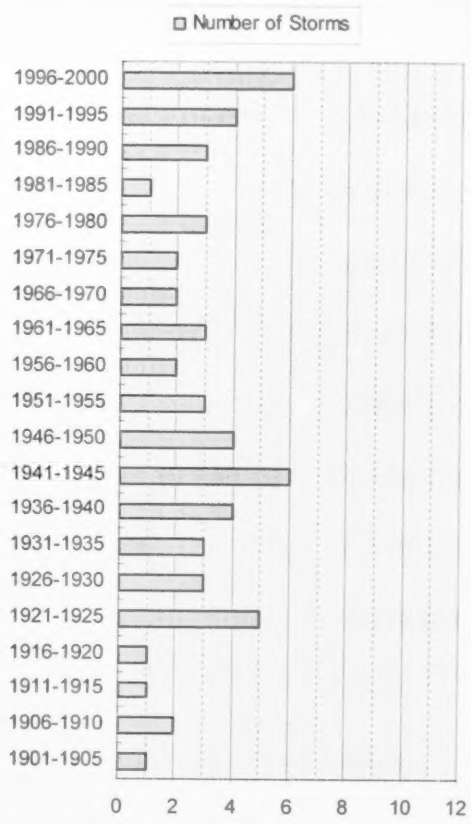

Newfoundland

Decadal and Five Year Frequency - Newfoundland

Storm Frequency - Ten Year Periods
(Newfoundland - Island Only)



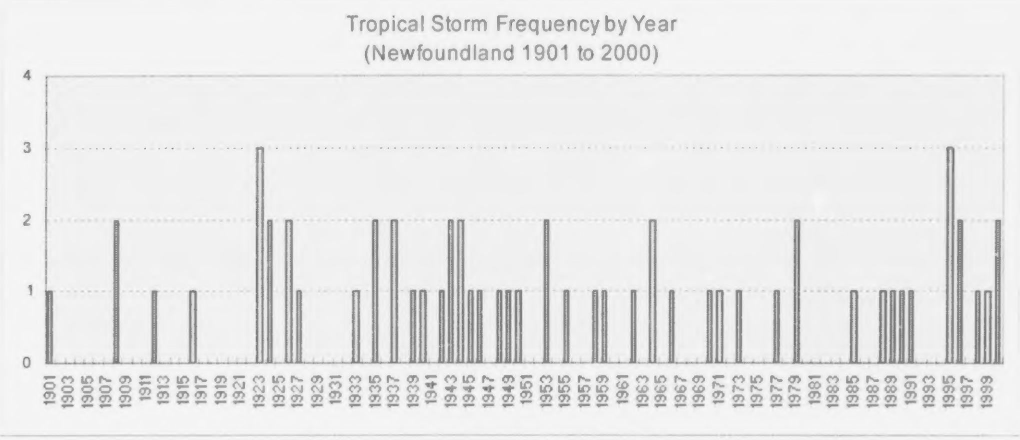
Storm Frequency - Five Year Periods
(Newfoundland - Island Only)



10-Year Period	Number of Storms	5-Year Period	Number of Storms
1901-1910	3	1901-1905	1
		1906-1910	2
1911-1920	2	1911-1915	1
		1916-1920	1
1921-1930	8	1921-1925	5
		1926-1930	3
1931-1940	7	1931-1935	3
		1936-1940	4
1941-1950	10	1941-1945	6
		1946-1950	4
1951-1960	5	1951-1955	3
		1956-1960	2
1961-1970	5	1961-1965	3
		1966-1970	2

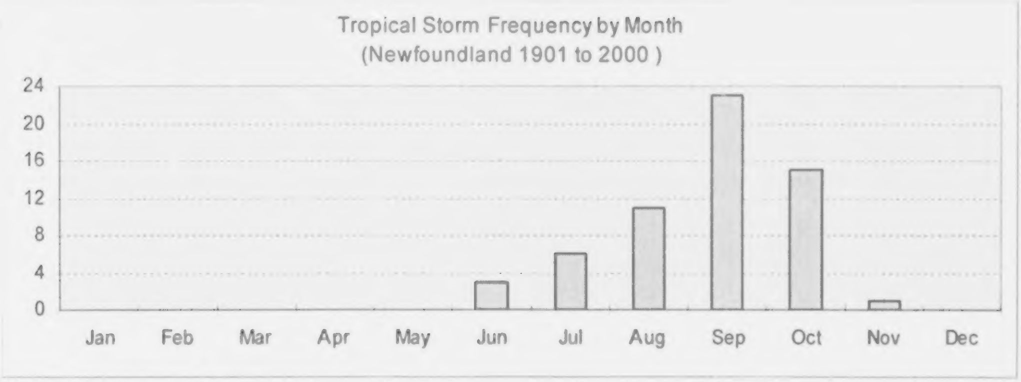
10-Year Period	Number of Storms	5-Year Period	Number of Storms
1971-1980	5	1971-1975	2
		1976-1980	3
1981-1990	4	1981-1985	1
		1986-1990	3
1991-2000	10	1991-1995	4
		1996-2000	6

Yearly Frequency- Newfoundland



Year	#	Year	#	Year	#	Year	#	Year	#
1901	1	1921	0	1941	0	1961	0	1981	0
1902	0	1922	0	1942	1	1962	1	1982	0
1903	0	1923	3	1943	2	1963	0	1983	0
1904	0	1924	2	1944	2	1964	2	1984	0
1905	0	1925	0	1945	1	1965	0	1985	1
1906	0	1926	2	1946	1	1966	1	1986	0
1907	0	1927	1	1947	0	1967	0	1987	0
1908	2	1928	0	1948	1	1968	0	1988	1
1909	0	1929	0	1949	1	1969	0	1989	1
1910	0	1930	0	1950	1	1970	1	1990	1
1911	0	1931	0	1951	0	1971	1	1991	1
1912	1	1932	0	1952	0	1972	0	1992	0
1913	0	1933	1	1953	2	1973	1	1993	0
1914	0	1934	0	1954	0	1974	0	1994	0
1915	0	1935	2	1955	1	1975	0	1995	3
1916	1	1936	0	1956	0	1976	0	1996	2
1917	0	1937	2	1957	0	1977	1	1997	0
1918	0	1938	0	1958	1	1978	0	1998	1
1919	0	1939	1	1959	1	1979	2	1999	1
1920	0	1940	1	1960	0	1980	0	2000	2

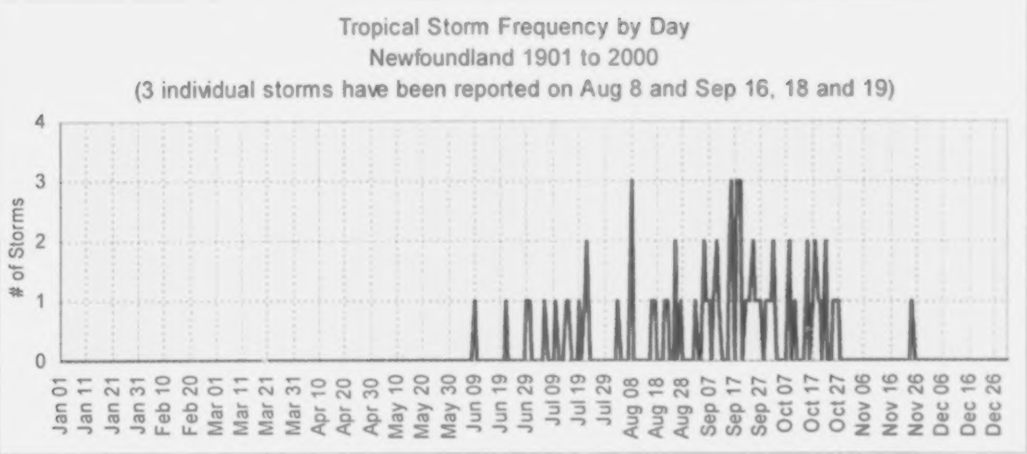
Monthly Frequency - Newfoundland



Note: Storms that span months were counted in both months

June	#	July	#	August	#	September	#	October	#	November	#
1945	1	1916	1	1908	1	1908	1	1901	1	1912	1
1959	1	1966	1	1924	1	1923	1	1923	2		
1995	1	1973	1	1926	1	1924	1	1935	1		
		1985	1	1927	1	1926	1	1939	1		
		1995	1	1935	1	1933	1	1944	1		
		1996	1	1950	1	1937	2	1953	1		
				1953	1	1940	1	1962	1		
				1971	1	1942	1	1970	1		
				1988	1	1943	2	1977	1		
				1989	1	1944	1	1979	1		
				1991	1	1946	1	1990	1		
						1948	1	1996	1		
						1949	1	2000	2		
						1955	1				
						1958	1				
						1964	2				
						1979	1				
						1995	1				
						1998	1				
						1999	1				
Total	3	Total	6	Total	11	Total	23	Total	15	Total	1

Daily Frequency - Newfoundland



Note: Storms will generally span more than one day. The storm is counted in each day

Day	#	Day	#	Day	#	Day	#	Day	#	Day	#
Jun 01	0	Jul 01	0	Aug 01	0	Sep 01	0	Oct 01	1	Nov 01	0
Jun 02	0	Jul 02	0	Aug 02	0	Sep 02	1	Oct 02	2	Nov 02	0
Jun 03	0	Jul 03	0	Aug 03	1	Sep 03	0	Oct 03	0	Nov 03	0
Jun 04	0	Jul 04	0	Aug 04	0	Sep 04	0	Oct 04	0	Nov 04	0
Jun 05	0	Jul 05	0	Aug 05	0	Sep 05	2	Oct 05	0	Nov 05	0
Jun 06	0	Jul 06	1	Aug 06	0	Sep 06	1	Oct 06	0	Nov 06	0
Jun 07	0	Jul 07	0	Aug 07	0	Sep 07	1	Oct 07	0	Nov 07	0
Jun 08	0	Jul 08	0	Aug 08	3	Sep 08	0	Oct 08	2	Nov 08	0
Jun 09	1	Jul 09	0	Aug 09	0	Sep 09	1	Oct 09	0	Nov 09	0
Jun 10	0	Jul 10	1	Aug 10	0	Sep 10	2	Oct 10	1	Nov 10	0
Jun 11	0	Jul 11	0	Aug 11	0	Sep 11	1	Oct 11	0	Nov 11	0
Jun 12	0	Jul 12	0	Aug 12	0	Sep 12	0	Oct 12	0	Nov 12	0
Jun 13	0	Jul 13	0	Aug 13	0	Sep 13	0	Oct 13	0	Nov 13	0
Jun 14	0	Jul 14	1	Aug 14	0	Sep 14	0	Oct 14	0	Nov 14	0
Jun 15	0	Jul 15	1	Aug 15	0	Sep 15	2	Oct 15	2	Nov 15	0
Jun 16	0	Jul 16	0	Aug 16	1	Sep 16	3	Oct 16	0	Nov 16	0
Jun 17	0	Jul 17	0	Aug 17	1	Sep 17	0	Oct 17	1	Nov 17	0
Jun 18	0	Jul 18	0	Aug 18	0	Sep 18	3	Oct 18	2	Nov 18	0
Jun 19	0	Jul 19	1	Aug 19	0	Sep 19	3	Oct 19	1	Nov 19	0
Jun 20	0	Jul 20	0	Aug 20	0	Sep 20	0	Oct 20	1	Nov 20	0
Jun 21	1	Jul 21	1	Aug 21	1	Sep 21	1	Oct 21	0	Nov 21	0
Jun 22	0	Jul 22	2	Aug 22	1	Sep 22	1	Oct 22	2	Nov 22	0
Jun 23	0	Jul 23	0	Aug 23	0	Sep 23	1	Oct 23	0	Nov 23	0
Jun 24	0	Jul 24	0	Aug 24	0	Sep 24	2	Oct 24	0	Nov 24	1
Jun 25	0	Jul 25	0	Aug 25	2	Sep 25	1	Oct 25	1	Nov 25	0
Jun 26	0	Jul 26	0	Aug 26	0	Sep 26	1	Oct 26	1	Nov 26	0
Jun 27	0	Jul 27	0	Aug 27	1	Sep 27	1	Oct 27	1	Nov 27	0
Jun 28	0	Jul 28	0	Aug 28	0	Sep 28	0	Oct 28	0	Nov 28	0
Jun 29	1	Jul 29	0	Aug 29	0	Sep 29	1	Oct 29	0	Nov 29	0
Jun 30	1	Jul 30	0	Aug 30	0	Sep 30	1	Oct 30	0	Nov 30	0
		Jul 31	0	Aug 31	0			Oct 31	0		

Summary Statistics - Newfoundland

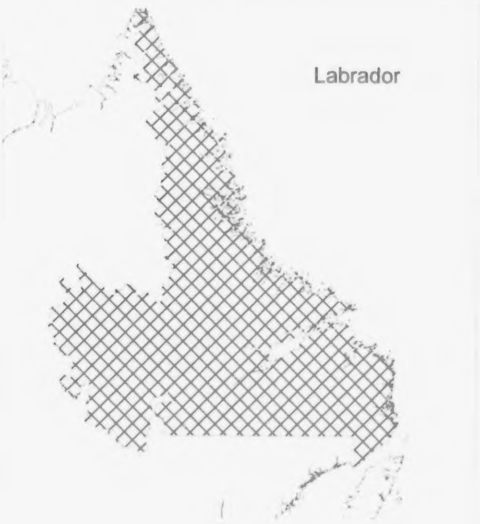
100 Yr	TD	TS	G	S	S1	S2	S3	S4	S5	H	<H	ALL	Sys-Spd
#	2	43	19	24	12	2	0	0	0	14	45	59	30.2
Return	50	2.3	5.3	4.2	8.3	50	NA	NA	NA	7.1	2.2	1.7	
50 Yr	**TD**	**TS**	**G**	**S**	**S1**	**S2**	**S3**	**S4**	**S5**	**H**	**<H**	**ALL**	**Sys-Spd**
#	1	22	9	13	5	1	0	0	0	6	23	29	31.9
Return	50	2.3	5.6	3.8	10	50	NA	NA	NA	8.3	2.2	1.7	

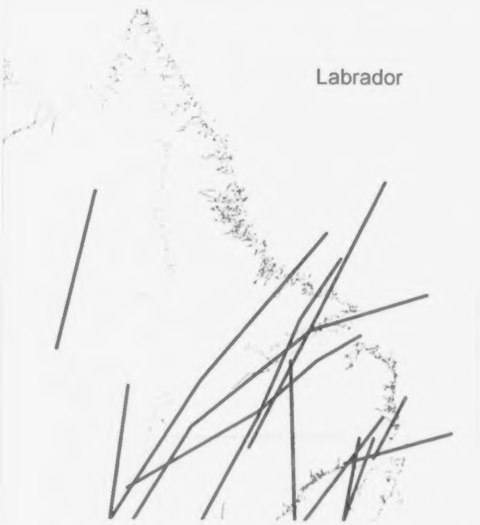
Table: storm name, year, maximum wind, etc. - Newfoundland

Name	Date	Storm #	MaxWind (kts)	SS Scale	AvgSysSpd (kts)	Pres (mb)	Comment	ENSO
Not Named	Oct 01, 1901	8	35	TS	28.6		E	Neutral
Not Named	Aug 03, 1908	2	60	TS	24.3		E	La Nina
Not Named	Sep 18, 1908	4	60	TS	22.2		E	La Nina
Not Named	Nov 24, 1912	6	55	TS	43.2		E	Neutral
Not Named	Jul 22, 1916	2	35	TS	52.2		E	La Nina
Not Named	Sep 10, 1923	1	55	TS	20.1		E	Neutral
Not Named	Oct 02, 1923	2	70	SS1	20.2		E	Neutral
Not Named	Oct 27, 1923	4	35	TS	18.8		E	Neutral
Not Named	Aug 27, 1924	2	75	SS1	29.5		E	La Nina
Not Named	Sep 05, 1924	3	55	TS	27.0		E	La Nina
Not Named	Aug 08, 1926	2	65	SS1	25.9		E	Neutral
Not Named	Sep 23, 1926	4	55	TS	15.9		E	Neutral
Not Named	Aug 25, 1927	1	90	SS2	45.6		E	Neutral
Not Named	Sep 19, 1933	13	50	TS	13.9		E	Neutral
Not Named	Aug 25, 1935	1	65	SS1	9.4		E	Neutral
Not Named	Oct 02, 1935	4	60	TS	41.2		E	Neutral
Not Named	Sep 26, 1937	7	70	SS1	26.5		E	Neutral
Not Named	Sep 30, 1937	8	35	TS	26.5		E	Neutral
Not Named	Oct 18, 1939	4	80	SS1	35.2			Neutral
Not Named	Sep 18, 1940	5	40	TS	14.8			El Nino
Not Named	Sep 24, 1942	5	35	TS	20.9		E	La Nina
Not Named	Sep 09, 1943	4	55	TS	35.1			Neutral
Not Named	Sep 16, 1943	5	35	TS	29.0		E	Neutral
Not Named	Sep 15, 1944	7	35	TS	42.1	982	E	La Nina
Not Named	Oct 22, 1944	11	40	TS	32.7		E	La Nina
Not Named	Jun 29, 1945	1	40	TS	22.8		E	Neutral
Not Named	Sep 16, 1946	4	50	TS	34.3		E	Neutral
Not Named	Sep 02, 1948	3	50	TS	38.3		E	Neutral
Not Named	Sep 10, 1949	4	65	SS1	36.9		E	La Nina
Able	Aug 22, 1950	1	30	TD	26.5			Neutral
Barbara	Aug 16, 1953	2	55	TS	35.3		E	Neutral
Not Named	Oct 08, 1953	10	60	TS	30.7		E	Neutral
Ione	Sep 21, 1955	9	45	TS	19.4		E	La Nina
Helene	Sep 29, 1958	8	65	SS1	38.5	966		Neutral
Not Named	Jun 21, 1959	3	45	TS	27.0		E	Neutral
Ella	Oct 22, 1962	5	60	TS	32.4		E	Neutral
Dora	Sep 15, 1964	6	55	TS	28.0		E	La Nina
Gladys	Sep 24, 1964	9	60	TS	46.8	990	E	La Nina
Celia	Jul 21, 1966	3.0	65	SS1	30.3		E	Neutral

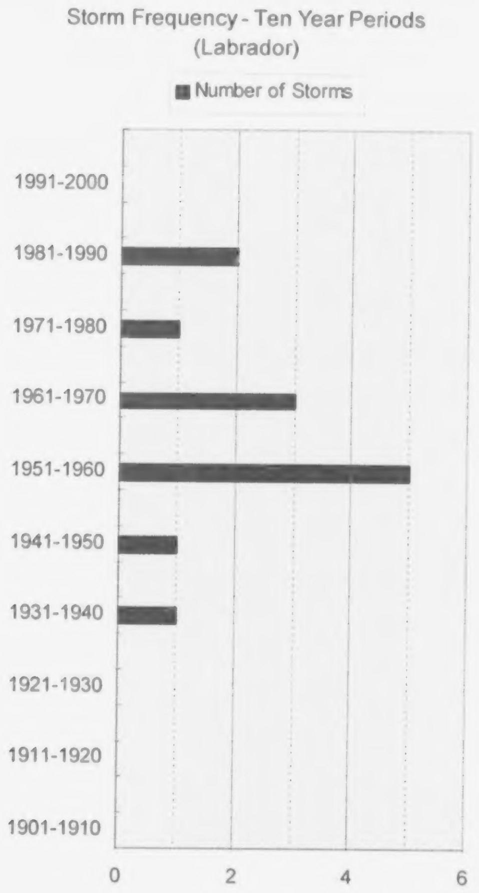
Name	Date	Storm #	MaxWind (kts)	SS Scale	AvgSysSpd (kts)	Pres (mb)	Comment	ENSO
Not Named	Oct 17, 1970	9.0	70	SS1	55.2	980		La Nina
Beth	Aug 17, 1971	3.0	60	TS	16.3	998	E	La Nina
Alice	Jul 06, 1973	1.0	60	TS	36.9	991		La Nina
Evelyn	Oct 15, 1977	5.0	70	SS1	18.0	999		Neutral
David	Sep 07, 1979	4.0	55	TS	38.3	986	E	Neutral
Subtrop 1	Oct 25, 1979	9.0	50	TS	41.5	982	S	Neutral
Ana	Jul 19, 1985	1.0	55	TS	29.1	996	E	Neutral
Alberto	Aug 08, 1988	1	30	TD	32.6	1008	E	La Nina
Dean	Aug 08, 1989	4	55	TS	32.0	991		Neutral
Lili	Oct 15, 1990	12	40	TS	37.9	994	E	Neutral
Bob	Aug 21, 1991	2	40	TS	24.3	1008	E	El Nino
Allison	Jun 09, 1995	1	40	TS	25.3	995	E	Neutral
Barry	Jul 10, 1995	2	45	TS	22.8	990		Neutral
Luis	Sep 11, 1995	12	80	SS1	57.6	963		Neutral
Bertha	Jul 14, 1996	2	50	TS	34.9	995	E	Neutral
Josephine	Oct 10, 1996	10	45	TS	30.7	985	E	Neutral
Earl	Sep 05, 1998	5	50	TS	16.2	986	E	La Nina
Floyd	Sep 18, 1999	6	35	TS	24.6	992	E	La Nina
Leslie	Oct 08, 2000	12	40	TS	34.4	1003	E	La Nina
Michael	Oct 19, 2000	13	85	SS2	27.2	965		La Nina

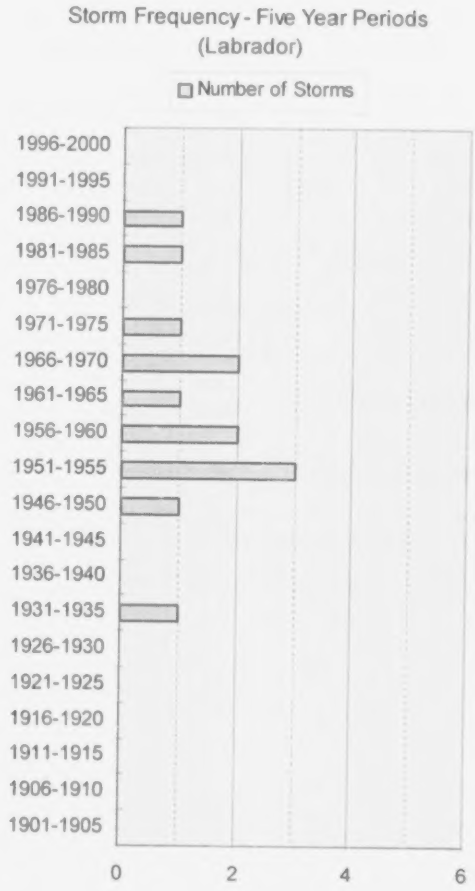
Newfoundland (Labrador Only) - Storm Frequencies



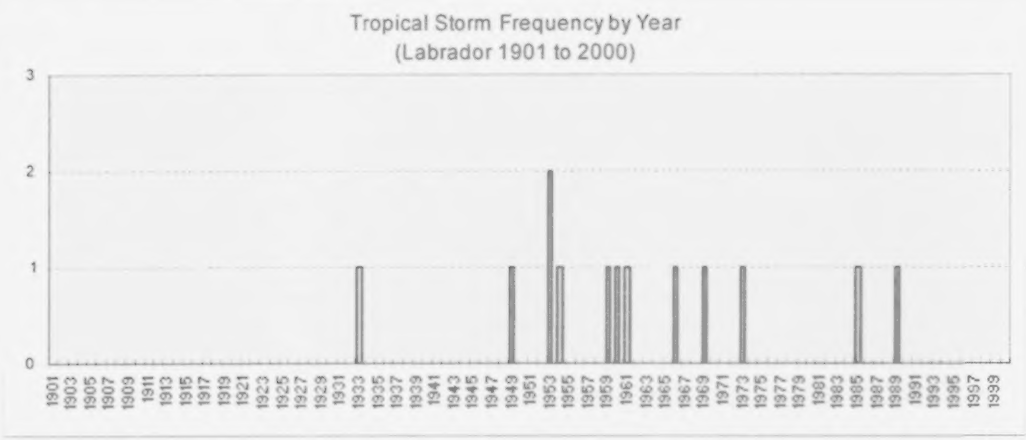


Decadal and Five Year Frequency - Labrador



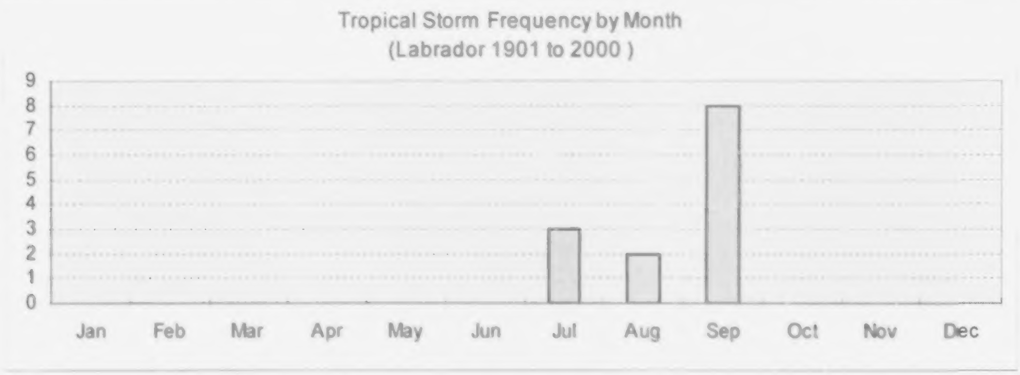


Yearly Frequency - Labrador



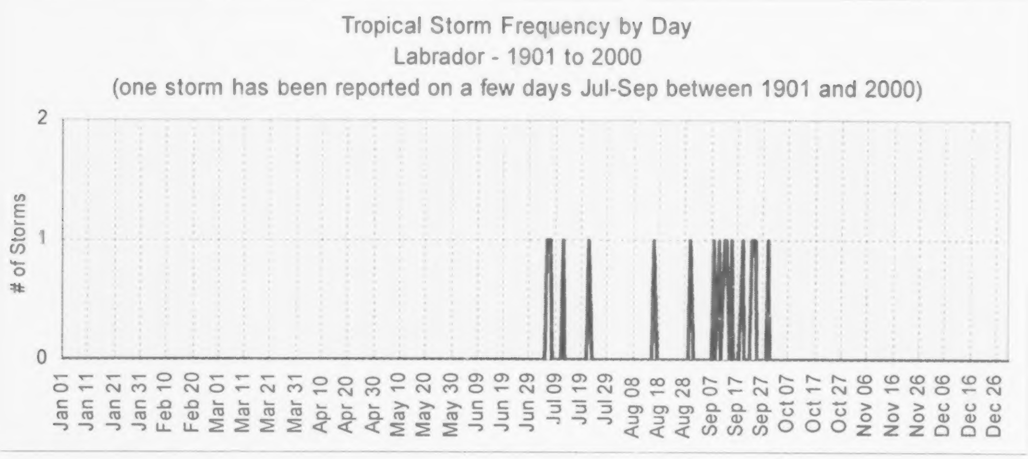
Year	#	Year	#	Year	#	Year	#
1933	1	1954	1	1961	1	1973	1
1949	1	1959	1	1966	1	1985	1
1953	2	1960	1	1969	1	1989	1

Monthly Frequency - Labrador



July	#	August	#	September	#
1959	1	1949	1	1933	1
1966	1	1953	1	1953	1
1973	1			1954	1
				1960	1
				1961	1
				1969	1
				1985	1
				1989	1
Total	3	Total	2	Total	8

Daily Frequency - Labrador


Tropical Storm Frequency by Day
Labrador - 1901 to 2000
(one storm has been reported on a few days Jul-Sep between 1901 and 2000)

Day	#	Day	#	Day	#	Day	#	Day	#	Day	#
Jul 01	0	Jul 17	0	Aug 01	0	Aug 16	1	Sep 01	0	Sep 16	0
Jul 02	0	Jul 18	0	Aug 02	0	Aug 17	0	Sep 02	0	Sep 17	0
Jul 03	0	Jul 19	0	Aug 03	0	Aug 18	0	Sep 03	0	Sep 18	0
Jul 04	0	Jul 20	0	Aug 04	0	Aug 19	0	Sep 04	0	Sep 19	1
Jul 05	0	Jul 21	0	Aug 05	0	Aug 20	0	Sep 05	0	Sep 20	0
Jul 06	1	Jul 22	1	Aug 06	0	Aug 21	0	Sep 06	0	Sep 21	0
Jul 07	1	Jul 23	0	Aug 07	0	Aug 22	0	Sep 07	0	Sep 22	0
Jul 08	0	Jul 24	0	Aug 08	0	Aug 23	0	Sep 08	1	Sep 23	1
Jul 09	0	Jul 25	0	Aug 09	0	Aug 24	0	Sep 09	0	Sep 24	1
Jul 10	0	Jul 26	0	Aug 10	0	Aug 25	0	Sep 10	1	Sep 25	0
Jul 11	0	Jul 27	0	Aug 11	0	Aug 26	0	Sep 11	0	Sep 26	0
Jul 12	1	Jul 28	0	Aug 12	0	Aug 27	0	Sep 12	1	Sep 27	0
Jul 13	0	Jul 29	0	Aug 13	0	Aug 28	0	Sep 13	1	Sep 28	0
Jul 14	0	Jul 30	0	Aug 14	0	Aug 29	0	Sep 14	0	Sep 29	1
Jul 15	0	Jul 31	0	Aug 15	0	Aug 30	1	Sep 15	1	Sep 30	0
Jul 16	0					Aug 31	0				

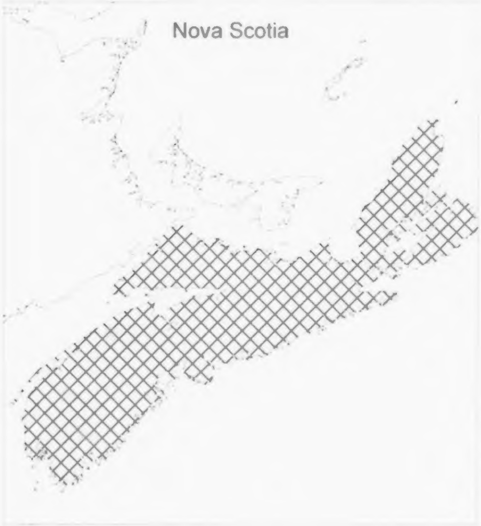
Labrador – Summary Statistics

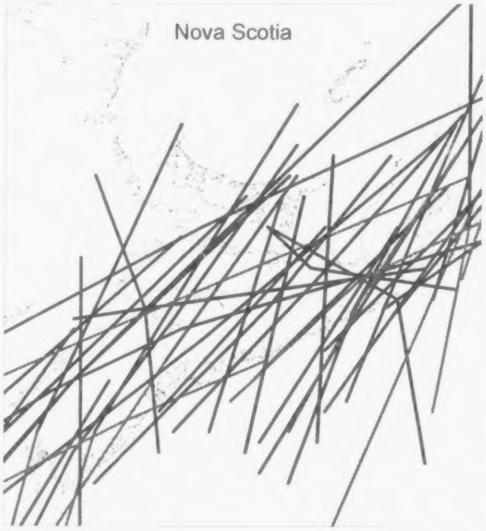
100 Yr	**TD**	**TS**	**G**	**S**	**S1**	**S2**	**S3**	**S4**	**S5**	**H**	**<H**	**ALL**	**Sys-Spd**
#	3	9	2	7	1	0	0	0	0	1	12	13	29.7
Return	33.3	11.1	50	14.3	100	NA	NA	NA	NA	100	8.3	7.7	
50 Yr	**TD**	**TS**	**G**	**S**	**S1**	**S2**	**S3**	**S4**	**S5**	**H**	**<H**	**ALL**	**Sys-Spd**
#	2	8	2	6	1	0	0	0	0	1	10	11	31.3
Return	25	6.3	25	8.3	50	NA	NA	NA	NA	50	5	4.5	

Table: storm name, year, maximum wind, etc. - Labrador

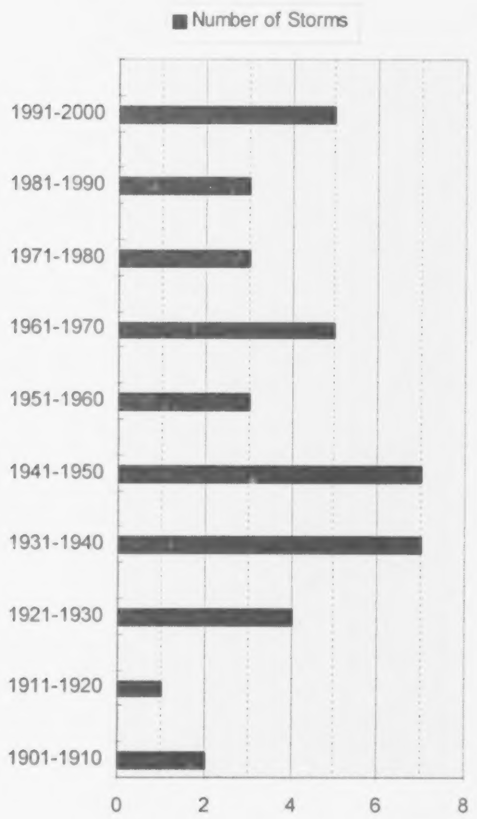
Name	Date	Storm #	MaxWind (kts)	SS Scale	AvgSysSpd (kts)	Pres (mb)	Comment	ENSO
Not Named	Sep 19, 1933	13	50	TS	13.8		E	Neutral
Not Named	Aug 30, 1949	2	30	TD	27.8		E	La Nina
Barbara	Aug 16, 1953	2	50	TS	48.1		E	Neutral
Carol	Sep 08, 1953	4	50	TS	29.3		E	Neutral
Edna	Sep 12, 1954	5	60	TS	25.4		E	La Nina
Cindy	Jul 12, 1959	4	35	TS	28.5		E	Neutral
Donna	Sep 13, 1960	5	55	TS	38.1		E	Neutral
Carla	Sep 15, 1961	3	30	TD	31.9		E	Neutral
Celia	Jul 22, 1966	3	25	TD	22.5		E	Neutral
Gerda	Sep 10, 1969	7	70	SS1	45.5		E	El Nino
Alice	Jul 06, 1973	1	50	TS	39.8			La Nina
Gloria	Sep 29, 1985	7	50	TS	23.7	990	E	Neutral
Hugo	Sep 23, 1989	8	40	TS	11.5	993	E	Neutral

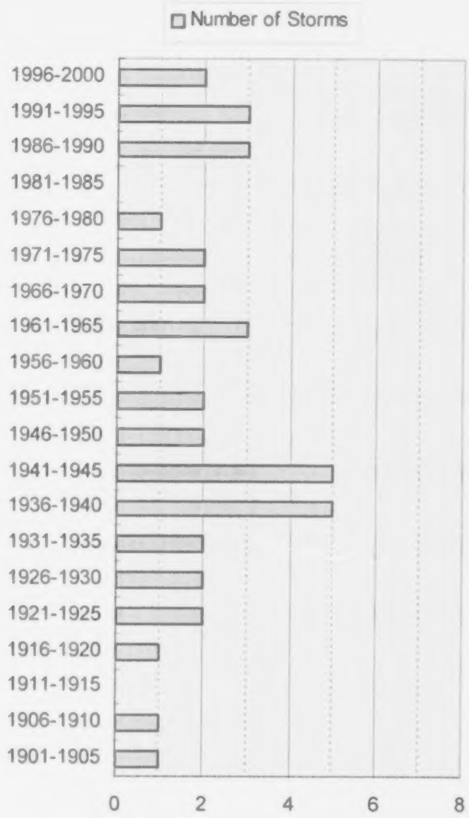
Nova Scotia - Storm Frequencies





Decadal and Five Year Frequency - Nova Scotia

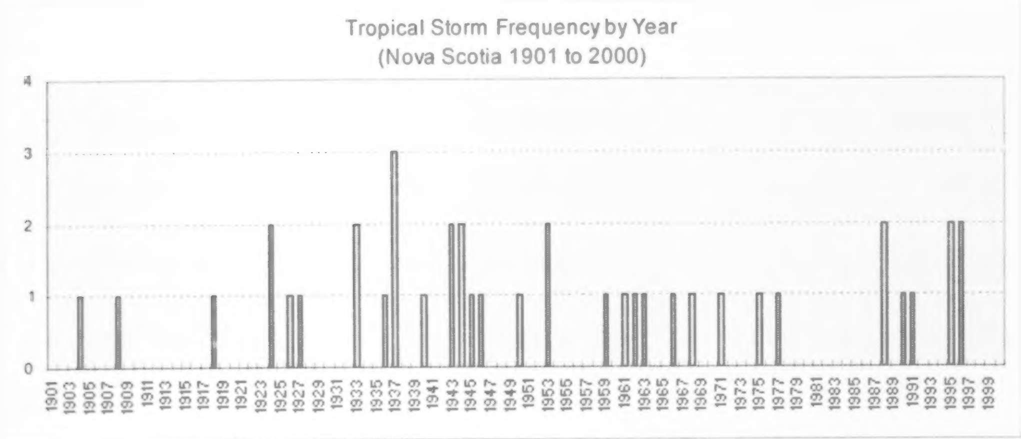

Storm Frequency - Ten Year Periods (Nova Scotia)


Storm Frequency - Five Year Periods (Nova Scotia)

10-Year Period	Number of Storms	5-Year Period	Number of Storms
1901-1910	2	1901-1905	1
		1906-1910	1
1911-1920	1	1911-1915	0
		1916-1920	1
1921-1930	4	1921-1925	2
		1926-1930	2
1931-1940	7	1931-1935	2
		1936-1940	5
1941-1950	7	1941-1945	5
		1946-1950	2
1951-1960	3	1951-1955	2
		1956-1960	1
1961-1970	5	1961-1965	3
		1966-1970	2

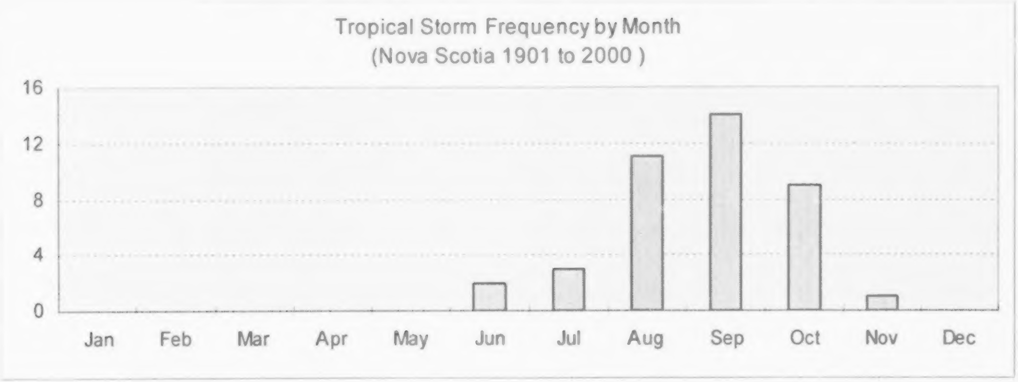
10-Year Period	Number of Storms	5-Year Period	Number of Storms
1971-1980	3	1971-1975	2
		1976-1980	1
1981-1990	3	1981-1985	0
		1986-1990	3
1991-2000	5	1991-1995	3
		1996-2000	2

Yearly Frequency - Nova Scotia



Year	#	Year	#	Year	#	Year	#	Year	#
1901	0	1921	0	1941	0	1961	1	1981	0
1902	0	1922	0	1942	0	1962	1	1982	0
1903	0	1923	0	1943	2	1963	1	1983	0
1904	1	1924	2	1944	2	1964	0	1984	0
1905	0	1925	0	1945	1	1965	0	1985	0
1906	0	1926	1	1946	1	1966	1	1986	0
1907	0	1927	1	1947	0	1967	0	1987	0
1908	1	1928	0	1948	0	1968	1	1988	2
1909	0	1929	0	1949	0	1969	0	1989	0
1910	0	1930	0	1950	1	1970	0	1990	1
1911	0	1931	0	1951	0	1971	1	1991	1
1912	0	1932	0	1952	0	1972	0	1992	0
1913	0	1933	2	1953	2	1973	0	1993	0
1914	0	1934	0	1954	0	1974	0	1994	0
1915	0	1935	0	1955	0	1975	1	1995	2
1916	0	1936	1	1956	0	1976	0	1996	2
1917	0	1937	3	1957	0	1977	1	1997	0
1918	1	1938	0	1958	0	1978	0	1998	0
1919	0	1939	0	1959	1	1979	0	1999	0
1920	0	1940	1	1960	0	1980	0	2000	0

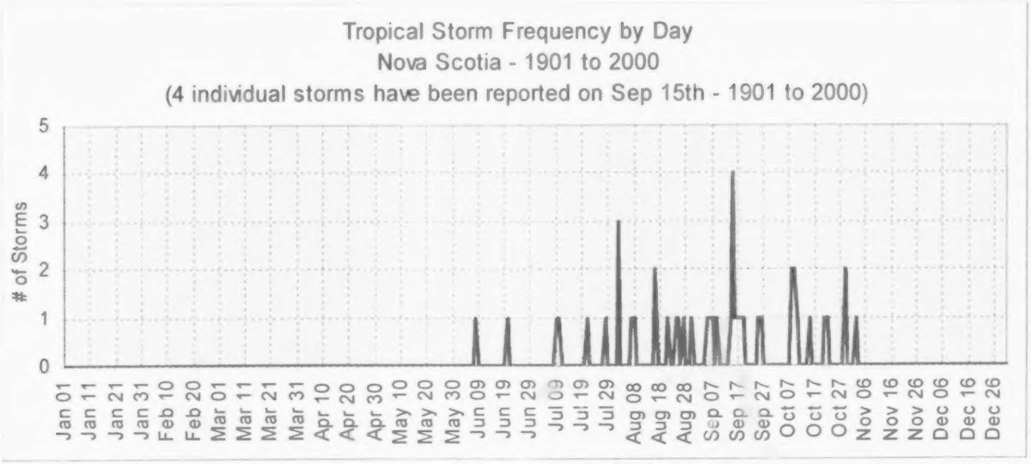
Monthly Frequency - Nova Scotia



Note: Storms that span months were counted in both months

June	#	July	#	August	#	September	#	October	#	November	#
1959	1	1966	1	1908	1	1904	1	1933	1	1991	1
1995	1	1975	1	1924	1	1918	1	1944	1		
		1995	1	1926	1	1924	1	1953	1		
				1927	1	1933	1	1961	1		
				1937	1	1936	1	1962	1		
				1950	1	1937	2	1963	1		
				1953	1	1940	1	1968	1		
				1971	1	1943	2	1977	1		
				1988	2	1944	1	1996	1		
				1990	1	1945	1				
						1946	1				
						1996	1				
Total	**2**	**Total**	**3**	**Total**	**11**	**Total**	**14**	**Total**	**9**	**Total**	**1**

Daily Frequency - Nova Scotia



Note: Storms will generally span more than one day. The storm is counted in each day

Day	#	Day	#	Day	#	Day	#	Day	#	Day	#
Jun 01	0	Jul 01	0	Aug 01	0	Sep 01	0	Oct 01	0	Nov 01	0
Jun 02	0	Jul 02	0	Aug 02	3	Sep 02	0	Oct 02	0	Nov 02	1
Jun 03	0	Jul 03	0	Aug 03	0	Sep 03	0	Oct 03	0	Nov 03	0
Jun 04	0	Jul 04	0	Aug 04	0	Sep 04	0	Oct 04	0	Nov 04	0
Jun 05	0	Jul 05	0	Aug 05	0	Sep 05	1	Oct 05	0	Nov 05	0
Jun 06	0	Jul 06	0	Aug 06	0	Sep 06	1	Oct 06	0	Nov 06	0
Jun 07	0	Jul 07	0	Aug 07	1	Sep 07	1	Oct 07	0	Nov 07	0
Jun 08	1	Jul 08	0	Aug 08	1	Sep 08	0	Oct 08	2	Nov 08	0
Jun 09	0	Jul 09	1	Aug 09	0	Sep 09	1	Oct 09	2	Nov 09	0
Jun 10	0	Jul 10	1	Aug 10	0	Sep 10	0	Oct 10	1	Nov 10	0
Jun 11	0	Jul 11	0	Aug 11	0	Sep 11	0	Oct 11	0	Nov 11	0
Jun 12	0	Jul 12	0	Aug 12	0	Sep 12	0	Oct 12	0	Nov 12	0
Jun 13	0	Jul 13	0	Aug 13	0	Sep 13	0	Oct 13	0	Nov 13	0
Jun 14	0	Jul 14	0	Aug 14	0	Sep 14	1	Oct 14	0	Nov 14	0
Jun 15	0	Jul 15	0	Aug 15	0	Sep 15	4	Oct 15	1	Nov 15	0
Jun 16	0	Jul 16	0	Aug 16	2	Sep 16	1	Oct 16	0	Nov 16	0
Jun 17	0	Jul 17	0	Aug 17	0	Sep 17	1	Oct 17	0	Nov 17	0
Jun 18	0	Jul 18	0	Aug 18	0	Sep 18	1	Oct 18	0	Nov 18	0
Jun 19	0	Jul 19	0	Aug 19	0	Sep 19	1	Oct 19	0	Nov 19	0
Jun 20	1	Jul 20	0	Aug 20	0	Sep 20	0	Oct 20	0	Nov 20	0
Jun 21	0	Jul 21	1	Aug 21	1	Sep 21	0	Oct 21	1	Nov 21	0
Jun 22	0	Jul 22	0	Aug 22	0	Sep 22	0	Oct 22	1	Nov 22	0
Jun 23	0	Jul 23	0	Aug 23	0	Sep 23	0	Oct 23	0	Nov 23	0
Jun 24	0	Jul 24	0	Aug 24	1	Sep 24	0	Oct 24	0	Nov 24	0
Jun 25	0	Jul 25	0	Aug 25	1	Sep 25	1	Oct 25	0	Nov 25	0
Jun 26	0	Jul 26	0	Aug 26	0	Sep 26	1	Oct 26	0	Nov 26	0
Jun 27	0	Jul 27	0	Aug 27	1	Sep 27	0	Oct 27	0	Nov 27	0
Jun 28	0	Jul 28	1	Aug 28	0	Sep 28	0	Oct 28	0	Nov 28	0
Jun 29	0	Jul 29	0	Aug 29	0	Sep 29	0	Oct 29	2	Nov 29	0
Jun 30	0	Jul 30	0	Aug 30	1	Sep 30	0	Oct 30	0	Nov 30	0
		Jul 31	0	Aug 31	0			Oct 31	0		

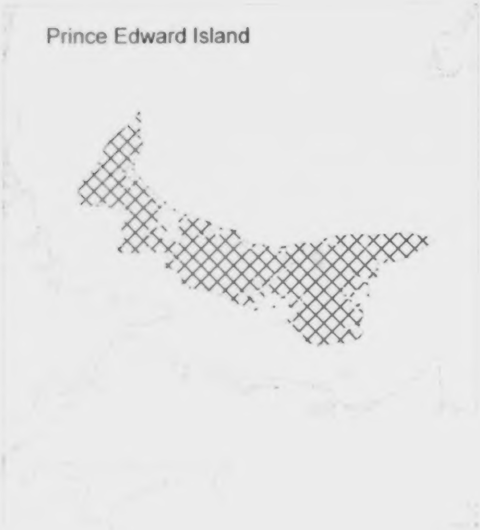
Summary Statistics - Nova Scotia

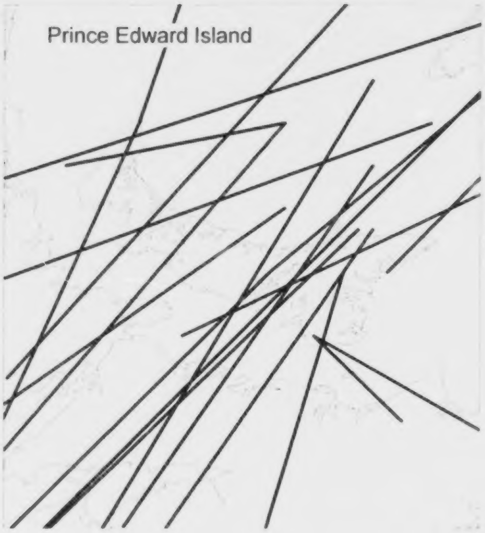
100 Yr	**TD**	**TS**	**G**	**S**	**S1**	**S2**	**S3**	**S4**	**S5**	**H**	**<H**	**ALL**	**Sys-Spd**
#	2	19	9	10	16	3	0	0	0	19	21	40	27.3
Return	50	5.3	11.1	10	6.3	33.3	NA	NA	NA	5.3	4.8	2.5	
50 Yr	**TD**	**TS**	**G**	**S**	**S1**	**S2**	**S3**	**S4**	**S5**	**H**	**<H**	**ALL**	**Sys-Spd**
#	1	8	4	4	9	1	0	0	0	10	9	19	24.6
Return	50	6.3	12.5	12.5	5.6	50	NA	NA	NA	5	5.6	2.6	

Table: storm name, year, maximum wind, etc. - Nova Scotia

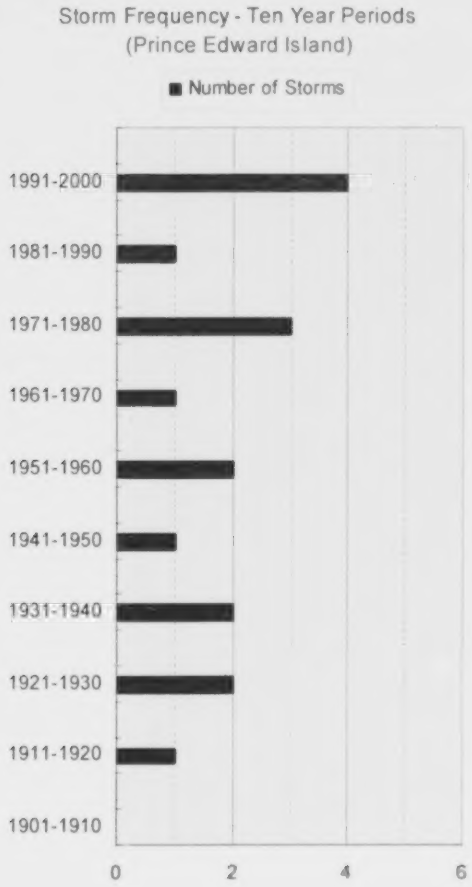
Name	Date	Storm #	MaxWind (kts)	SS Scale	AvgSysSpd (kts)	Pres (mb)	Comment	ENSO
Not Named	Sep 15, 1904	2	65	SS1	59.8		E	El Nino
Not Named	Aug 02, 1908	2	75	SS1	26.8		E	La Nina
Not Named	Sep 06, 1918	4	55	TS	19.2			El Nino
Not Named	Aug 27, 1924	2	85	SS2	40.4		E	La Nina
Not Named	Sep 05, 1924	3	65	SS1	26.8		E	La Nina
Not Named	Aug 08, 1926	2	70	SS1	25.8		E	Neutral
Not Named	Aug 24, 1927	1	90	SS2	53.1		E	Neutral
Not Named	Sep 18, 1933	13	60	TS	21.7		E	Neutral
Not Named	Oct 29, 1933	20	60	TS	14.0		E	Neutral
Not Named	Sep 25, 1936	15	75	SS1	26.0		E	Neutral
Not Named	Aug 02, 1937	1	40	TS	14.0			Neutral
Not Named	Sep 14, 1937	4	55	TS	29.0			Neutral
Not Named	Sep 26, 1937	7	75	SS1	25.6		E	Neutral
Not Named	Sep 17, 1940	5	65	SS1	22.5			El Nino
Not Named	Sep 09, 1943	4	60	TS	34.2			Neutral
Not Named	Sep 16, 1943	5	40	TS	21.0		E	Neutral
Not Named	Sep 15, 1944	7	35	TS	40.1		E	La Nina
Not Named	Oct 22, 1944	11	45	TS	32.8		E	La Nina
Not Named	Sep 19, 1945	9	25	TD	34.8		E	Neutral
Not Named	Sep 15, 1946	4	55	TS	30.8		E	Neutral
Able	Aug 21, 1950	1	35	TS	24.3			Neutral
Barbara	Aug 16, 1953	2	55	TS	35.3		E	Neutral
Not Named	Oct 08, 1953	10	60	TS	19.4		E	Neutral
Not Named	Jun 20, 1959	3	70	SS1	12.7		E	Neutral
Frances	Oct 09, 1961	7	40	TS	22.1		E	Neutral
Daisy	Oct 08, 1962	4	65	SS1	14.6			Neutral
Ginny	Oct 29, 1963	8	95	SS2	33.2	958		El Nino
Celia	Jul 21, 1966	3	65	SS1	37.2	998		Neutral
Gladys	Oct 21, 1968	8	65	SS1	25.0	975	E	Neutral
Beth	Aug 16, 1971	3	65	SS1	15.8	984		La Nina
Blanche	Jul 28, 1975	2	70	SS1	33.5	980		La Nina
Evelyn	Oct 15, 1977	5	70	SS1	20.0	998		Neutral
Alberto	Aug 07, 1988	1	35	TS	24.7	1002		La Nina
Chris	Aug 30, 1988	3	25	TD	38.1	1008		La Nina
Bertha	Aug 02, 1990	2	70	SS1	21.2	973		Neutral
Unnamed	Nov 02, 1991	8	50	TS	24.1	996		El Nino
Allison	Jun 08, 1995	1	45	TS	22.9	993	E	Neutral
Barry	Jul 09, 1995	2	50	TS	22.7	991		Neutral
Hortense	Sep 15, 1996	8	70	SS1	18.0	970		Neutral
Josephine	Oct 09, 1996	10	45	TS	28.0	980	E	Neutral

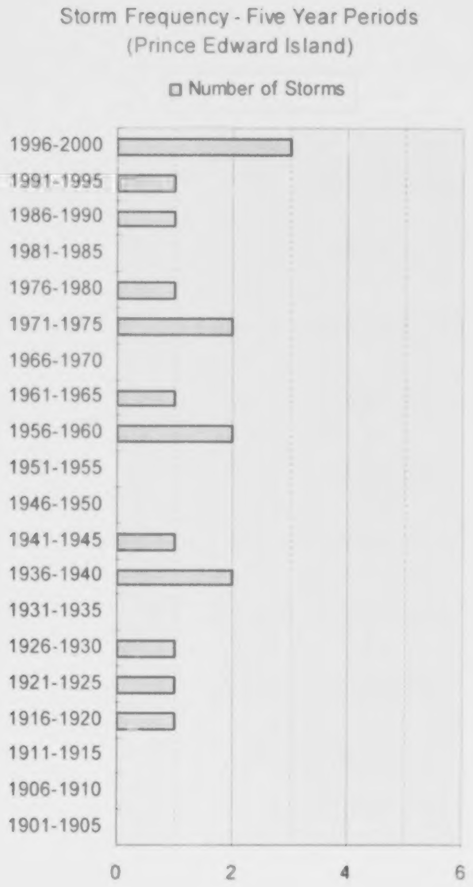
Prince Edward Island - Storm Frequencies


Prince Edward Island


Prince Edward Island

Decadal and Five Year Frequency - Prince Edward Island

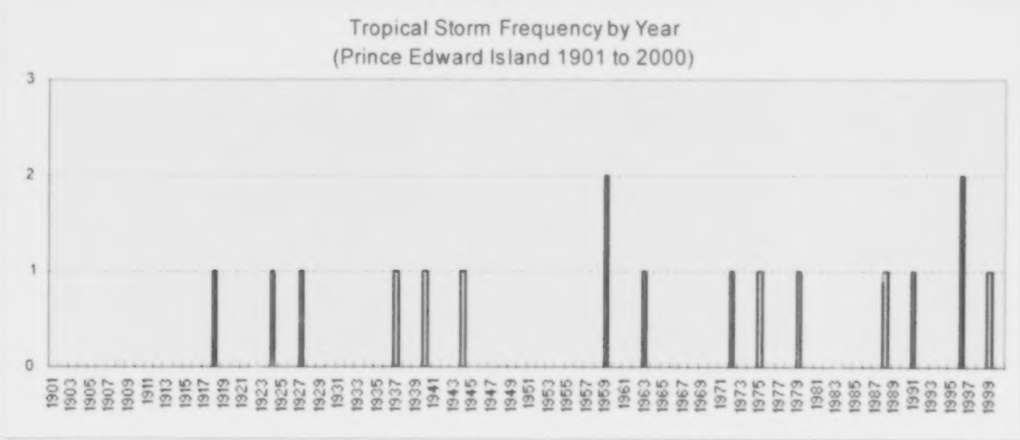

Storm Frequency - Ten Year Periods
(Prince Edward Island)


Storm Frequency - Five Year Periods
(Prince Edward Island)

10-Year Period	Number of Storms	5-Year Period	Number of Storms
1901-1910	0	1901-1905	0
		1906-1910	0
1911-1920	1	1911-1915	0
		1916-1920	1
1921-1930	2	1921-1925	1
		1926-1930	1
1931-1940	2	1931-1935	0
		1936-1940	2
1941-1950	1	1941-1945	1
		1946-1950	0
1951-1960	2	1951-1955	0
		1956-1960	2
1961-1970	1	1961-1965	1
		1966-1970	0

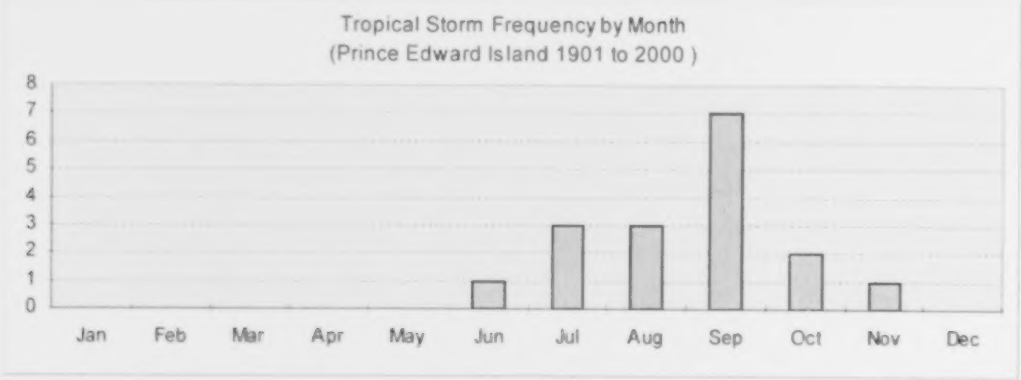
10-Year Period	Number of Storms	5-Year Period	Number of Storms
1971-1980	3	1971-1975	2
		1976-1980	1
1981-1990	1	1981-1985	0
		1986-1990	1
1991-2000	4	1991-1995	1
		1996-2000	3

Yearly Frequency - Prince Edward Island



Year	#	Year	#	Year	#	Year	#	Year	#
1901	0	1921	0	1941	0	1961	0	1981	0
1902	0	1922	0	1942	0	1962	0	1982	0
1903	0	1923	0	1943	0	1963	1	1983	0
1904	0	1924	1	1944	1	1964	0	1984	0
1905	0	1925	0	1945	0	1965	0	1985	0
1906	0	1926	0	1946	0	1966	0	1986	0
1907	0	1927	1	1947	0	1967	0	1987	0
1908	0	1928	0	1948	0	1968	0	1988	1
1909	0	1929	0	1949	0	1969	0	1989	0
1910	0	1930	0	1950	0	1970	0	1990	0
1911	0	1931	0	1951	0	1971	0	1991	1
1912	0	1932	0	1952	0	1972	1	1992	0
1913	0	1933	0	1953	0	1973	0	1993	0
1914	0	1934	0	1954	0	1974	0	1994	0
1915	0	1935	0	1955	0	1975	1	1995	0
1916	0	1936	0	1956	0	1976	0	1996	2
1917	0	1937	1	1957	0	1977	0	1997	0
1918	1	1938	0	1958	0	1978	0	1998	0
1919	0	1939	0	1959	2	1979	1	1999	1
1920	0	1940	1	1960	0	1980	0	2000	0

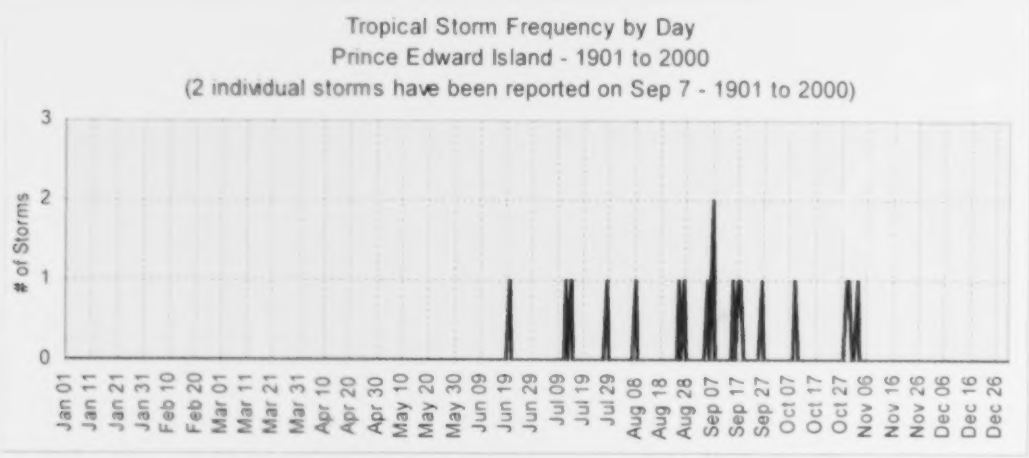
Monthly Frequency - Prince Edward Island



Note: Storms that span months were counted in both months

June	#	July	#	August	#	September	#	October	#	November	#
1959	1	1959	1	1924	1	1918	1	1963	1	1991	1
		1975	1	1927	1	1937	1	1996	1		
		1996	1	1988	1	1940	1				
						1944	1				
						1972	1				
						1979	1				
						1999	1				
Total	**1**	**Total**	**3**	**Total**	**3**	**Total**	**7**	**Total**	**2**	**Total**	**1**

Daily Frequency - Prince Edward Island



Note: Storms will generally span more than one day. The storm is counted in each day

Day	#	Day	#	Day	#	Day	#	Day	#	Day	#
Jun 01	0	Jul 01	0	Aug 01	0	Sep 01	0	Oct 01	0	Nov 01	0
Jun 02	0	Jul 02	0	Aug 02	0	Sep 02	0	Oct 02	0	Nov 02	1
Jun 03	0	Jul 03	0	Aug 03	0	Sep 03	0	Oct 03	0	Nov 03	0
Jun 04	0	Jul 04	0	Aug 04	0	Sep 04	0	Oct 04	0	Nov 04	0
Jun 05	0	Jul 05	0	Aug 05	0	Sep 05	1	Oct 05	0	Nov 05	0
Jun 06	0	Jul 06	0	Aug 06	0	Sep 06	0	Oct 06	0	Nov 06	0
Jun 07	0	Jul 07	0	Aug 07	0	Sep 07	2	Oct 07	0	Nov 07	0
Jun 08	0	Jul 08	0	Aug 08	1	Sep 08	0	Oct 08	0	Nov 08	0
Jun 09	0	Jul 09	0	Aug 09	0	Sep 09	0	Oct 09	1	Nov 09	0
Jun 10	0	Jul 10	0	Aug 10	0	Sep 10	0	Oct 10	0	Nov 10	0
Jun 11	0	Jul 11	0	Aug 11	0	Sep 11	0	Oct 11	0	Nov 11	0
Jun 12	0	Jul 12	1	Aug 12	0	Sep 12	0	Oct 12	0	Nov 12	0
Jun 13	0	Jul 13	0	Aug 13	0	Sep 13	0	Oct 13	0	Nov 13	0
Jun 14	0	Jul 14	1	Aug 14	0	Sep 14	0	Oct 14	0	Nov 14	0
Jun 15	0	Jul 15	0	Aug 15	0	Sep 15	1	Oct 15	0	Nov 15	0
Jun 16	0	Jul 16	0	Aug 16	0	Sep 16	0	Oct 16	0	Nov 16	0
Jun 17	0	Jul 17	0	Aug 17	0	Sep 17	1	Oct 17	0	Nov 17	0
Jun 18	0	Jul 18	0	Aug 18	0	Sep 18	1	Oct 18	0	Nov 18	0
Jun 19	0	Jul 19	0	Aug 19	0	Sep 19	0	Oct 19	0	Nov 19	0
Jun 20	1	Jul 20	0	Aug 20	0	Sep 20	0	Oct 20	0	Nov 20	0
Jun 21	0	Jul 21	0	Aug 21	0	Sep 21	0	Oct 21	0	Nov 21	0
Jun 22	0	Jul 22	0	Aug 22	0	Sep 22	0	Oct 22	0	Nov 22	0
Jun 23	0	Jul 23	0	Aug 23	0	Sep 23	0	Oct 23	0	Nov 23	0
Jun 24	0	Jul 24	0	Aug 24	0	Sep 24	0	Oct 24	0	Nov 24	0
Jun 25	0	Jul 25	0	Aug 25	1	Sep 25	0	Oct 25	0	Nov 25	0
Jun 26	0	Jul 26	0	Aug 26	0	Sep 26	1	Oct 26	0	Nov 26	0
Jun 27	0	Jul 27	0	Aug 27	1	Sep 27	0	Oct 27	0	Nov 27	0
Jun 28	0	Jul 28	1	Aug 28	0	Sep 28	0	Oct 28	0	Nov 28	0
Jun 29	0	Jul 29	0	Aug 29	0	Sep 29	0	Oct 29	1	Nov 29	0
Jun 30	0	Jul 30	0	Aug 30	0	Sep 30	0	Oct 30	1	Nov 30	0
		Jul 31	0	Aug 31	0			Oct 31	0		

Summary Statistics - Prince Edward Island

100 Yr	**TD**	**TS**	**G**	**S**	**S1**	**S2**	**S3**	**S4**	**S5**	**H**	**<H**	**ALL**	**Sys-Spd**
#	0	13	7	6	1	3	0	0	0	4	13	17	28.7
Return	NA	7.7	14.3	16.7	100	33.3	NA	NA	NA	25	7.7	5.9	
50 Yr	**TD**	**TS**	**G**	**S**	**S1**	**S2**	**S3**	**S4**	**S5**	**H**	**<H**	**ALL**	**Sys-Spd**
#	0	10	5	5	0	1	0	0	0	1	10	11	25.2
Return	NA	5	10	10	NA	50	NA	NA	NA	50	5	4.5	

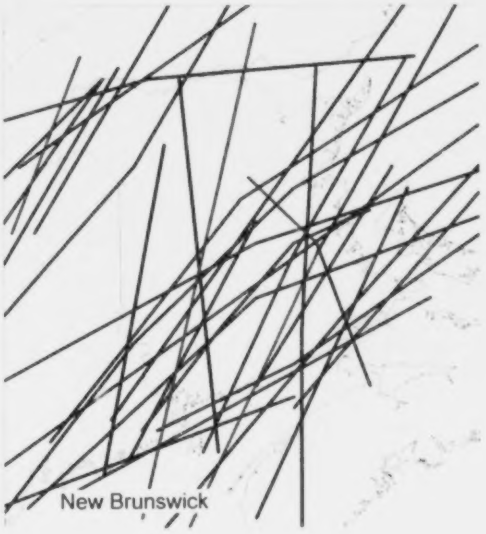
Table: storm name, year, maximum wind, etc. - Prince Edward Island

Name	Date	Storm #	MaxWind (kts)	SS Scale	AvgSysSpd (kts)	Pres (mb)	Comment	ENSO
Not Named	Sep 07, 1918	4	45	TS	20.7		E	El Nino
Not Named	Aug 27, 1924	2	85	SS2	34.9		E	La Nina
Not Named	Aug 25, 1927	1	90	SS2	56.5		E	Neutral
Not Named	Sep 26, 1937	7	70	SS1	34.9		E	Neutral
Not Named	Sep 17, 1940	5	55	TS	22.0			El Nino
Not Named	Sep 15, 1944	7	35	TS	41.7	982	E	La Nina

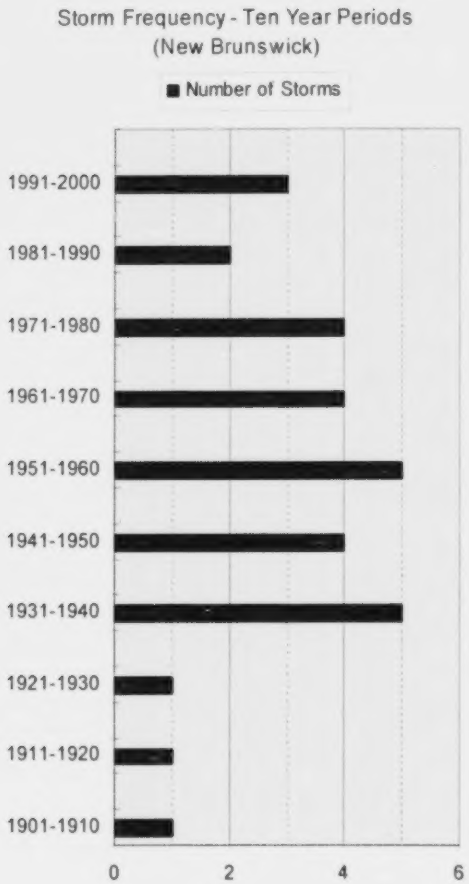
Name	Date	Storm #	MaxWind (kts)	SS Scale	AvgSysSpd (kts)	Pres (mb)	Comment	ENSO
Not Named	Jun 20, 1959	3	60	TS	10.1		E	Neutral
Cindy	Jul 12, 1959	4	45	TS	29.6		E	Neutral
Ginny	Oct 29, 1963	8	90	SS2	27.1		E	El Nino
Carrie	Sep 05, 1972	4	40	TS	10.4		E	El Nino
Blanche	Jul 28, 1975	2	60	TS	37.5	988	E	La Nina
David	Sep 07, 1979	4	50	TS	32.3	988	E	Neutral
Alberto	Aug 08, 1988	1	35	TS	26.5	1004		La Nina
Unnamed	Nov 02, 1991	8	50	TS	24.1	996		El Nino
Bertha	Jul 14, 1996	2	50	TS	29.3	995	E	Neutral
Josephine	Oct 09, 1996	10	45	TS	29.0	984	E	Neutral
Floyd	Sep 18, 1999	6	35	TS	21.1	990	E	La Nina

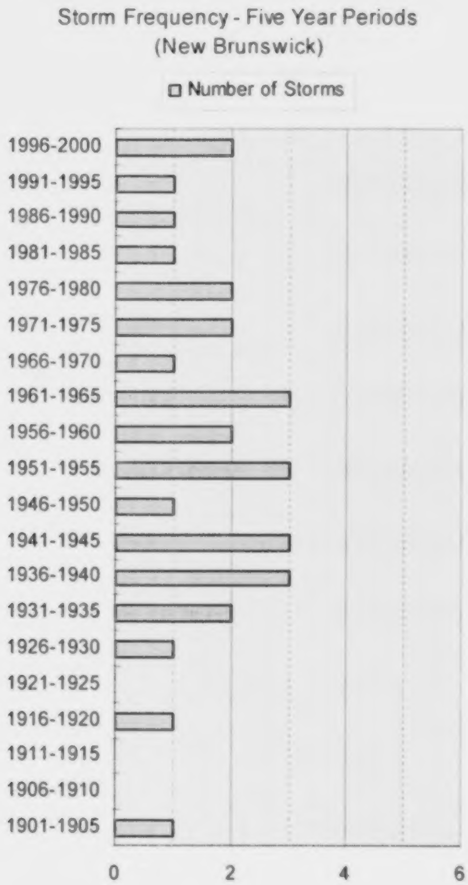
New Brunswick - Storm Frequencies

New Brunswick



Decadal and Five Year Frequency - New Brunswick

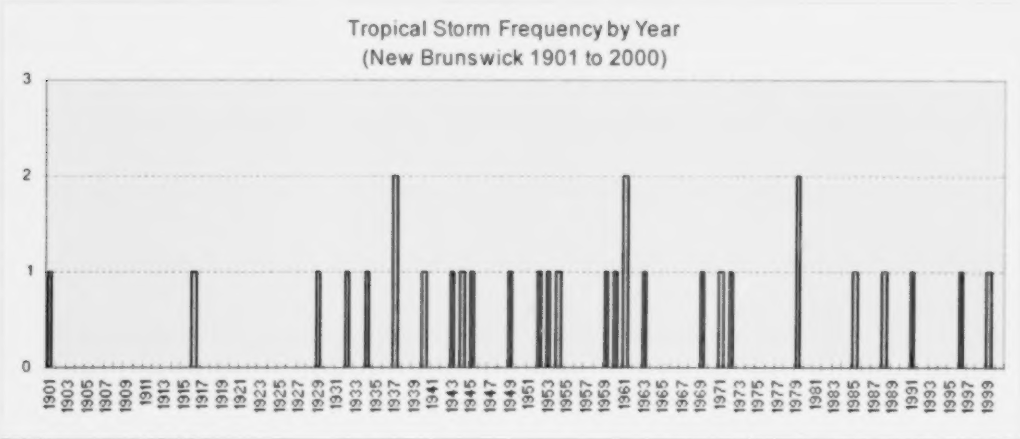




10-Year Period	Number of Storms	5-Year Period	Number of Storms
1901-1910	1	1901-1905	1
		1906-1910	0
1911-1920	1	1911-1915	0
		1916-1920	1
1921-1930	1	1921-1925	0
		1926-1930	1
1931-1940	5	1931-1935	2
		1936-1940	3
1941-1950	4	1941-1945	3
		1946-1950	1
1951-1960	5	1951-1955	3
		1956-1960	2
1961-1970	4	1961-1965	3
		1966-1970	1

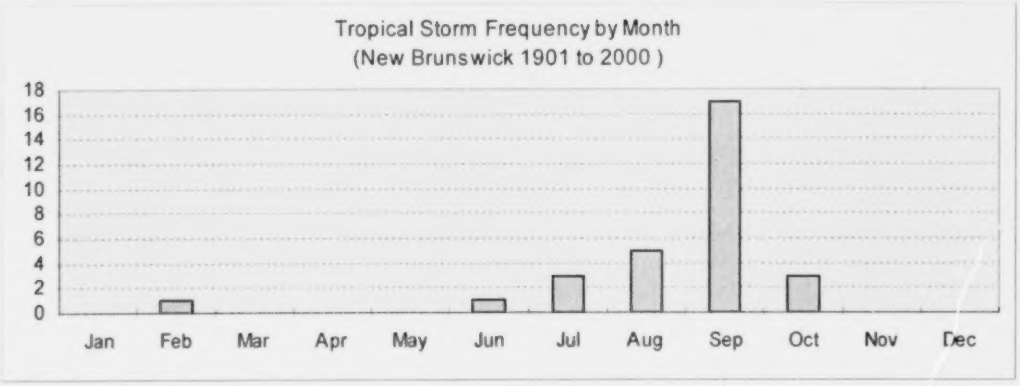
10-Year Period	Number of Storms	5-Year Period	Number of Storms
1971-1980	4	1971-1975	2
		1976-1980	2
1981-1990	2	1981-1985	1
		1986-1990	1
1991-2000	3	1991-1995	1
		1996-2000	2

Yearly Frequency - New Brunswick



Year	#	Year	#	Year	#	Year	#	Year	#
1901	1	1921	0	1941	0	1961	2	1981	0
1902	0	1922	0	1942	0	1962	0	1982	0
1903	0	1923	0	1943	1	1963	1	1983	0
1904	0	1924	0	1944	1	1964	0	1984	0
1905	0	1925	0	1945	1	1965	0	1985	1
1906	0	1926	0	1946	0	1966	0	1986	0
1907	0	1927	0	1947	0	1967	0	1987	0
1908	0	1928	0	1948	0	1968	0	1988	1
1909	0	1929	1	1949	1	1969	1	1989	0
1910	0	1930	0	1950	0	1970	0	1990	0
1911	0	1931	0	1951	0	1971	1	1991	1
1912	0	1932	1	1952	1	1972	1	1992	0
1913	0	1933	0	1953	1	1973	0	1993	0
1914	0	1934	1	1954	1	1974	0	1994	0
1915	0	1935	0	1955	0	1975	0	1995	0
1916	1	1936	0	1956	0	1976	0	1996	1
1917	0	1937	2	1957	0	1977	0	1997	0
1918	0	1938	0	1958	0	1978	0	1998	0
1919	0	1939	0	1959	1	1979	2	1999	1
1920	0	1940	1	1960	1	1980	0	2000	0

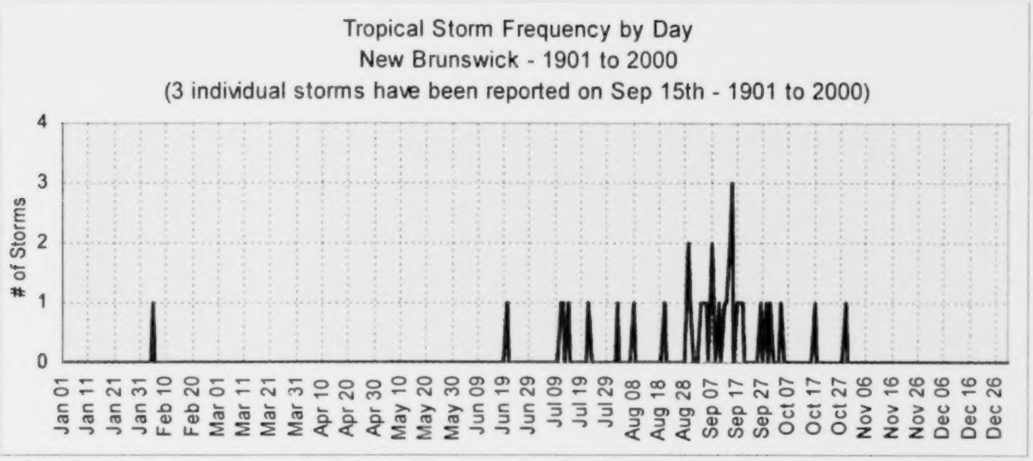
Monthly Frequency - New Brunswick



Note: Storms that span months were counted in both months

February	#	June	#	July	#	August	#	September	#	October	#
1952	1	1934	1	1916	1	1937	1	1901	1	1929	1
				1959	1	1949	1	1932	1	1943	1
				1996	1	1971	1	1937	1	1963	1
						1988	1	1940	1		
						1991	1	1944	1		
								1945	1		
								1953	1		
								1954	1		
								1960	1		
								1961	2		
								1969	1		
								1972	1		
								1979	2		
								1985	1		
								1999	1		
Total	**1**	**Total**	**1**	**Total**	**3**	**Total**	**5**	**Total**	**17**	**Total**	**3**

Daily Frequency - New Brunswick



Note: Storms will generally span more than one day. The storm is counted in each day

Day	#	Day	#	Day	#	Day	#	Day	#	Day	#
Jan 01	0	Mar 01	0	May 01	0	Jul 01	0	Sep 01	0	Nov 01	0
Jan 02	0	Mar 02	0	May 02	0	Jul 02	0	Sep 02	0	Nov 02	0
Jan 03	0	Mar 03	0	May 03	0	Jul 03	0	Sep 03	1	Nov 03	0
Jan 04	0	Mar 04	0	May 04	0	Jul 04	0	Sep 04	1	Nov 04	0
Jan 05	0	Mar 05	0	May 05	0	Jul 05	0	Sep 05	1	Nov 05	0
Jan 06	0	Mar 06	0	May 06	0	Jul 06	0	Sep 06	0	Nov 06	0
Jan 07	0	Mar 07	0	May 07	0	Jul 07	0	Sep 07	2	Nov 07	0
Jan 08	0	Mar 08	0	May 08	0	Jul 08	0	Sep 08	1	Nov 08	0
Jan 09	0	Mar 09	0	May 09	0	Jul 09	0	Sep 09	0	Nov 09	0
Jan 10	0	Mar 10	0	May 10	0	Jul 10	0	Sep 10	1	Nov 10	0
Jan 11	0	Mar 11	0	May 11	0	Jul 11	1	Sep 11	0	Nov 11	0
Jan 12	0	Mar 12	0	May 12	0	Jul 12	1	Sep 12	1	Nov 12	0
Jan 13	0	Mar 13	0	May 13	0	Jul 13	0	Sep 13	1	Nov 13	0
Jan 14	0	Mar 14	0	May 14	0	Jul 14	1	Sep 14	2	Nov 14	0
Jan 15	0	Mar 15	0	May 15	0	Jul 15	0	**Sep 15**	**3**	Nov 15	0
Jan 16	0	Mar 16	0	May 16	0	Jul 16	0	Sep 16	0	Nov 16	0
Jan 17	0	Mar 17	0	May 17	0	Jul 17	0	Sep 17	1	Nov 17	0
Jan 18	0	Mar 18	0	May 18	0	Jul 18	0	Sep 18	1	Nov 18	0
Jan 19	0	Mar 19	0	May 19	0	Jul 19	0	Sep 19	1	Nov 19	0
Jan 20	0	Mar 20	0	May 20	0	Jul 20	0	Sep 20	0	Nov 20	0
Jan 21	0	Mar 21	0	May 21	0	Jul 21	0	Sep 21	0	Nov 21	0
Jan 22	0	Mar 22	0	May 22	0	Jul 22	1	Sep 22	0	Nov 22	0
Jan 23	0	Mar 23	0	May 23	0	Jul 23	0	Sep 23	0	Nov 23	0
Jan 24	0	Mar 24	0	May 24	0	Jul 24	0	Sep 24	0	Nov 24	0
Jan 25	0	Mar 25	0	May 25	0	Jul 25	0	Sep 25	0	Nov 25	0
Jan 26	0	Mar 26	0	May 26	0	Jul 26	0	Sep 26	1	Nov 26	0
Jan 27	0	Mar 27	0	May 27	0	Jul 27	0	Sep 27	0	Nov 27	0
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Jan 29	0	Mar 29	0	May 29	0	Jul 29	0	Sep 29	0	Nov 29	0
Jan 30	0	Mar 30	0	May 30	0	Jul 30	0	Sep 30	1	Nov 30	0
Jan 31	0	Mar 31	0	May 31	0	Jul 31	0	Oct 01	0	Dec 01	0
Feb 01	0	Apr 01	0	Jun 01	0	Aug 01	0	Oct 02	0	Dec 02	0
Feb 02	0	Apr 02	0	Jun 02	0	Aug 02	1	Oct 03	0	Dec 03	0

Day	#	Day	#	Day	#	Day	#	Day	#	Day	#
Feb 03	0	Apr 03	0	Jun 03	0	Aug 03	0	Oct 04	1	Dec 04	0
Feb 04	0	Apr 04	0	Jun 04	0	Aug 04	0	Oct 05	0	Dec 05	0
Feb 05	1	Apr 05	0	Jun 05	0	Aug 05	0	Oct 06	0	Dec 06	0
Feb 06	0	Apr 06	0	Jun 06	0	Aug 06	0	Oct 07	0	Dec 07	0
Feb 07	0	Apr 07	0	Jun 07	0	Aug 07	0	Oct 08	0	Dec 08	0
Feb 08	0	Apr 08	0	Jun 08	0	Aug 08	1	Oct 09	0	Dec 09	0
Feb 09	0	Apr 09	0	Jun 09	0	Aug 09	0	Oct 10	0	Dec 10	0
Feb 10	0	Apr 10	0	Jun 10	0	Aug 10	0	Oct 11	0	Dec 11	0
Feb 11	0	Apr 11	0	Jun 11	0	Aug 11	0	Oct 12	0	Dec 12	0
Feb 12	0	Apr 12	0	Jun 12	0	Aug 12	0	Oct 13	0	Dec 13	0
Feb 13	0	Apr 13	0	Jun 13	0	Aug 13	0	Oct 14	0	Dec 14	0
Feb 14	0	Apr 14	0	Jun 14	0	Aug 14	0	Oct 15	0	Dec 15	0
Feb 15	0	Apr 15	0	Jun 15	0	Aug 15	0	Oct 16	0	Dec 16	0
Feb 16	0	Apr 16	0	Jun 16	0	Aug 16	0	Oct 17	1	Dec 17	0
Feb 17	0	Apr 17	0	Jun 17	0	Aug 17	0	Oct 18	0	Dec 18	0
Feb 18	0	Apr 18	0	Jun 18	0	Aug 18	0	Oct 19	0	Dec 19	0
Feb 19	0	Apr 19	0	Jun 19	0	Aug 19	0	Oct 20	0	Dec 20	0
Feb 20	0	Apr 20	0	Jun 20	1	Aug 20	1	Oct 21	0	Dec 21	0
Feb 21	0	Apr 21	0	Jun 21	0	Aug 21	0	Oct 22	0	Dec 22	0
Feb 22	0	Apr 22	0	Jun 22	0	Aug 22	0	Oct 23	0	Dec 23	0
Feb 23	0	Apr 23	0	Jun 23	0	Aug 23	0	Oct 24	0	Dec 24	0
Feb 24	0	Apr 24	0	Jun 24	0	Aug 24	0	Oct 25	0	Dec 25	0
Feb 25	0	Apr 25	0	Jun 25	0	Aug 25	0	Oct 26	0	Dec 26	0
Feb 26	0	Apr 26	0	Jun 26	0	Aug 26	0	Oct 27	0	Dec 27	0
Feb 27	0	Apr 27	0	Jun 27	0	Aug 27	0	Oct 28	0	Dec 28	0
Feb 28	0	Apr 28	0	Jun 28	0	Aug 28	0	Oct 29	1	Dec 29	0
Feb 29	0	Apr 29	0	Jun 29	0	Aug 29	2	Oct 30	0	Dec 30	0
		Apr 30	0	Jun 30	0	Aug 30	1	Oct 31	0	Dec 31	0
						Aug 31	0				

Summary Statistics - New Brunswick

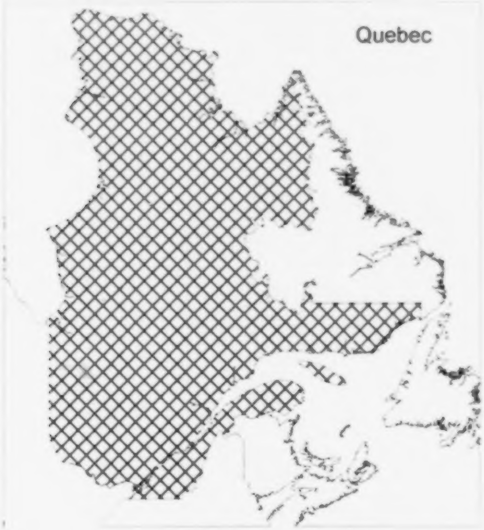
100 Yr	**TD**	**TS**	**G**	**S**	**S1**	**S2**	**S3**	**S4**	**S5**	**H**	**<H**	**ALL**	**Sys-Spd**
#	5	21	11	10	2	2	0	0	0	4	26	30	32.6
Return	20	4.8	9.1	10	50	50	NA	NA	NA	25	3.8	3.3	
50 Yr	**TD**	**TS**	**G**	**S**	**S1**	**S2**	**S3**	**S4**	**S5**	**H**	**<H**	**ALL**	**Sys-Spd**
#	2	12	5	7	2	2	0	0	0	4	14	18	33.9
Return	25	4.2	10	7.1	25	25	NA	NA	NA	12.5	3.6	2.8	

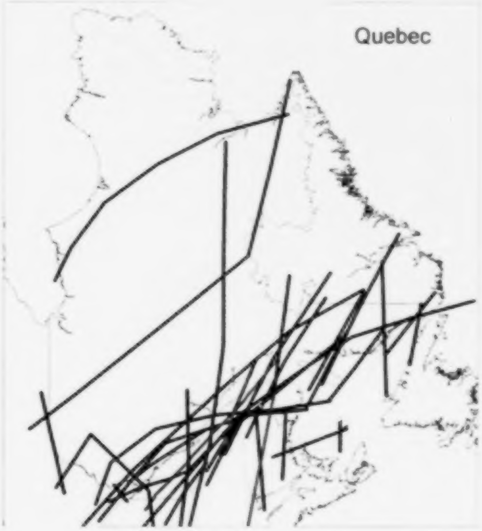
Table: storm name, year, maximum wind, etc. - New Brunswick

Name	Date	Storm #	MaxWind (kts)	SS Scale	AvgSysSpd (kts)	Pres (mb)	Comment	ENSO
Not Named	Sep 30, 1901	8	25	TD	29.7		E	Neutral
Not Named	Jul 22, 1916	2	55	TS	28.5			La Nina
Not Named	Oct 04, 1929	2	25	TD	62.0		E	El Nino
Not Named	Sep 17, 1932	5	35	TS	25.0		E	Neutral
Not Named	Jun 20, 1934	2	40	TS	23.6		E	Neutral
Not Named	Aug 02, 1937	1	35	TS	11.3			Neutral
Not Named	Sep 14, 1937	4	55	TS	26.5			Neutral
Not Named	Sep 03, 1940	4	55	TS	20.3			El Nino
Not Named	Oct 17, 1943	9	35	TS	34.2		E	Neutral

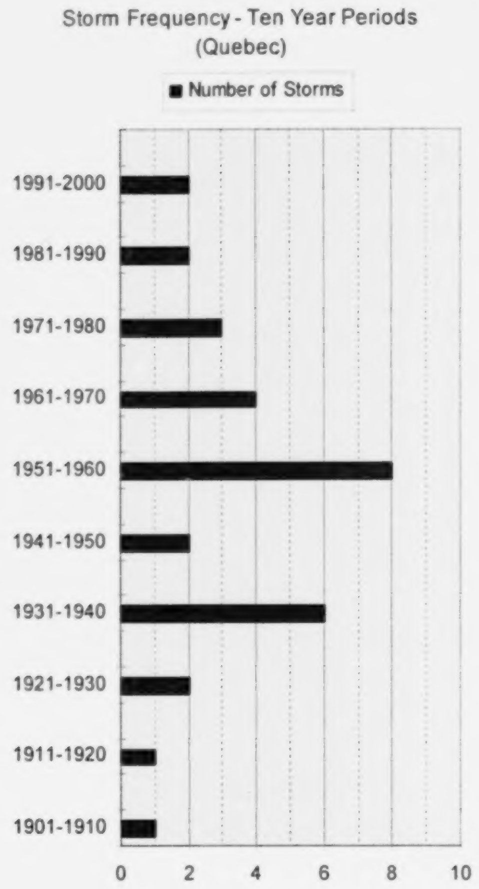
Name	Date	Storm #	MaxWind (kts)	SS Scale	AvgSysSpd (kts)	Pres (mb)	Comment	ENSO
Not Named	Sep 15, 1944	7	35	TS	38.4		E	La Nina
Not Named	Sep 19, 1945	9	25	TD	29.5		E	Neutral
Not Named	Aug 29, 1949	2	35	TS	38.3		E	La Nina
Not Named	Feb 05, 1952	1	45	TS	30.5		E	Neutral
Carol	Sep 07, 1953	4	65	SS1	32.6			Neutral
Edna	Sep 12, 1954	5	65	SS1	48.9		E	La Nina
Cindy	Jul 11, 1959	4	50	TS	30.0		E	Neutral
Donna	Sep 13, 1960	5	60	TS	39.1		E	Neutral
Esther	Sep 26, 1961	5	30	TD	17.1			Neutral
Not Named	Sep 15, 1961	6	35	TS	60.6			Neutral
Ginny	Oct 29, 1963	8	90	SS2	33.1		E	El Nino
Gerda	Sep 10, 1969	7	95	SS2	46.2	979		El Nino
Doria	Aug 29, 1971	5	35	TS	24.2		E	La Nina
Carrie	Sep 04, 1972	4	50	TS	9.8		E	El Nino
David	Sep 07, 1979	4	50	TS	32.0	988	E	Neutral
Frederic	Sep 14, 1979	6	30	TD	78.7	998	E	Neutral
Gloria	Sep 28, 1985	7	50	TS	30.1	986	E	Neutral
Alberto	Aug 08, 1988	1	35	TS	26.5	1004		La Nina
Bob	Aug 20, 1991	2	60	TS	23.7	977		El Nino
Bertha	Jul 14, 1996	2	55	TS	28.9	995		Neutral
Floyd	Sep 18, 1999	6	40	TS	17.6	987	E	La Nina

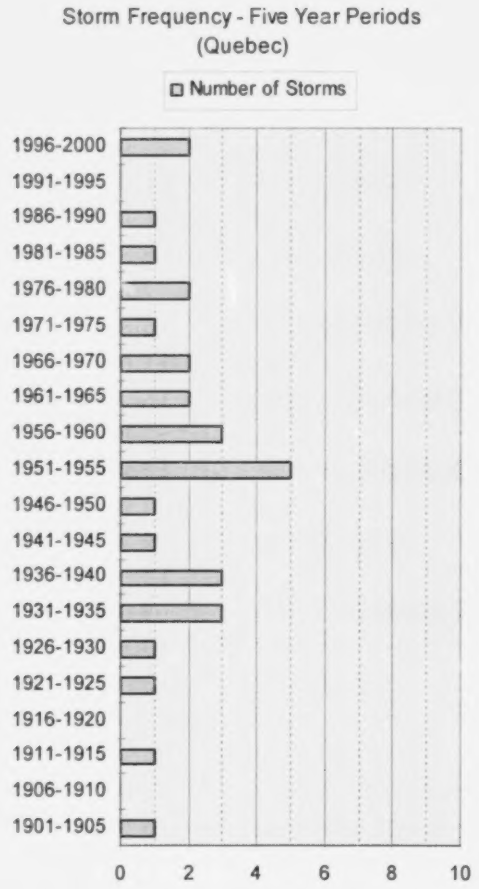
Quebec - Storm Frequencies





Decadal and Five Year Frequency - Quebec

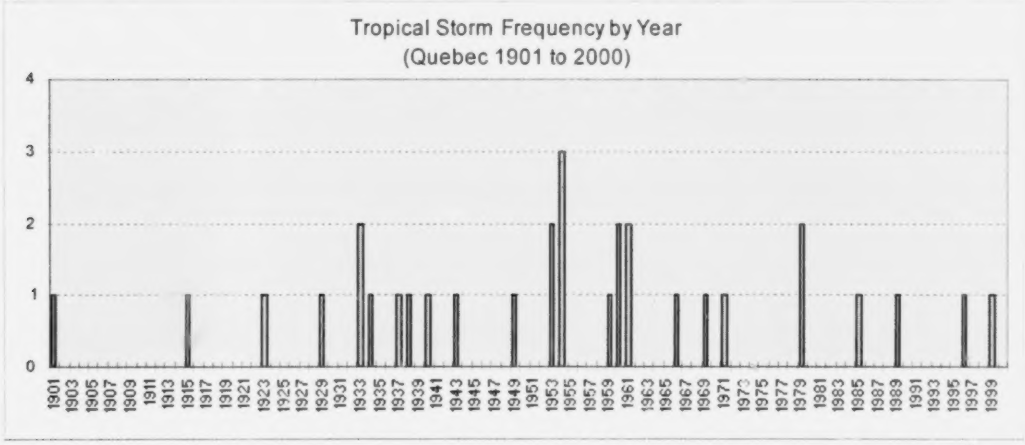

Storm Frequency - Ten Year Periods (Quebec)


Storm Frequency - Five Year Periods (Quebec)

10-Year Period	Number of Storms	5-Year Period	Number of Storms
1901-1910	1	1901-1905	1
		1906-1910	0
1911-1920	1	1911-1915	1
		1916-1920	0
1921-1930	2	1921-1925	1
		1926-1930	1
1931-1940	6	1931-1935	3
		1936-1940	3
1941-1950	2	1941-1945	1
		1946-1950	1
1951-1960	8	1951-1955	5
		1956-1960	3
1961-1970	4	1961-1965	2
		1966-1970	2

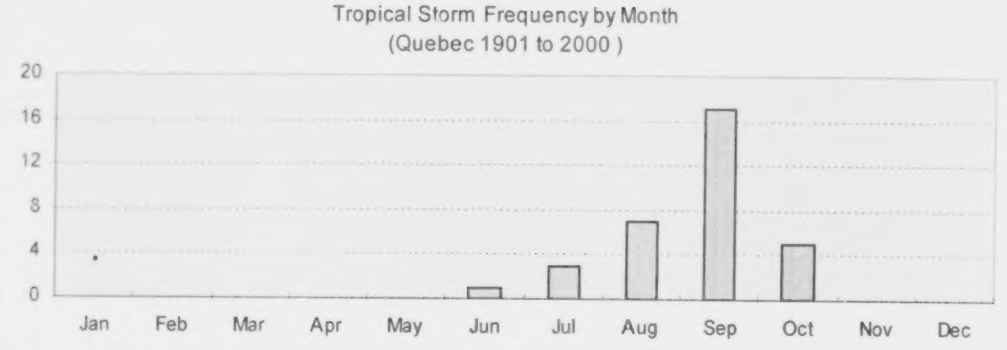
10-Year Period	Number of Storms	5-Year Period	Number of Storms
1971-1980	3	1971-1975	1
		1976-1980	2
1981-1990	2	1981-1985	1
		1986-1990	1
1991-2000	2	1991-1995	0
		1996-2000	2

Yearly Frequency - Quebec



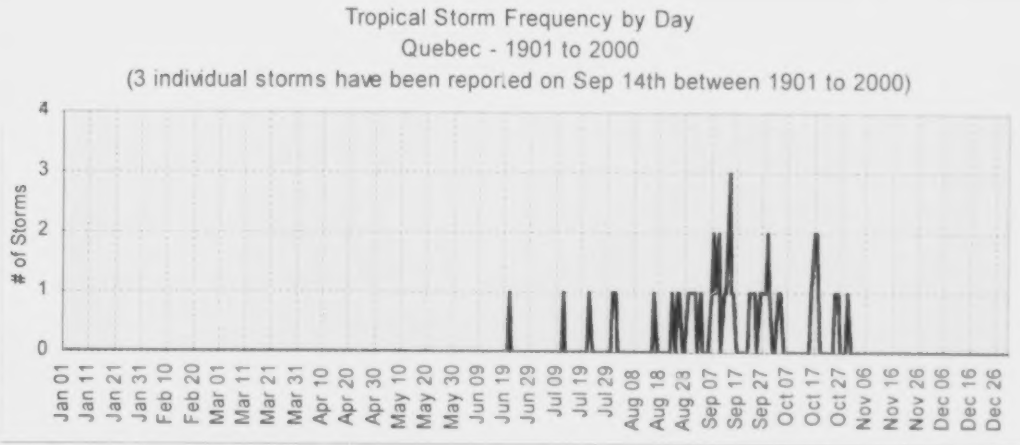
Year	#	Year	#	Year	#	Year	#
1901	1	1937	1	1954	3	1971	1
1915	1	1938	1	1959	1	1979	2
1923	1	1940	1	1960	2	1985	1
1929	1	1943	1	1961	2	1989	1
1933	2	1949	1	1966	1	1996	1
1934	1	1953	2	1969	1	1999	1

Monthly Frequency - Quebec


Tropical Storm Frequency by Month
(Quebec 1901 to 2000)

June	**#**	**July**	**#**	**August**	**#**	**September**	**#**	**October**	**#**
1934	1	1959	1	1915	1	1901	1	1923	1
		1960	1	1933	1	1937	1	1929	1
		1966	1	1949	1	1938	1	1933	1
				1953	1	1940	1	1943	1
				1954	1	1953	1	1954	1
				1960	1	1960	1		
				1971	1	1969	1		
						1985	1		
						1989	1		
						1996	1		
						1999	1		
						1954	2		
						1961	2		
						1979	2		
Total	**1**	**Total**	**3**	**Total**	**7**	**Total**	**17**	**Total**	**5**

Daily Frequency - Quebec



Tropical Storm Frequency by Day
Quebec - 1901 to 2000
(3 individual storms have been reported on Sep 14th between 1901 to 2000)

Day	#	Day	#	Day	#	Day	#	Day	#
Jun 01	0	Jul 01	0	Aug 01	1	Sep 01	1	Oct 01	0
Jun 02	0	Jul 02	0	Aug 02	0	Sep 02	0	Oct 02	0
Jun 03	0	Jul 03	0	Aug 03	0	Sep 03	1	Oct 03	1
Jun 04	0	Jul 04	0	Aug 04	0	Sep 04	0	Oct 04	1
Jun 05	0	Jul 05	0	Aug 05	0	Sep 05	0	Oct 05	0
Jun 06	0	Jul 06	0	Aug 06	0	Sep 06	0	Oct 06	0
Jun 07	0	Jul 07	0	Aug 07	0	Sep 07	1	Oct 07	0
Jun 08	0	Jul 08	0	Aug 08	0	Sep 08	2	Oct 08	0
Jun 09	0	Jul 09	0	Aug 09	0	Sep 09	1	Oct 09	0
Jun 10	0	Jul 10	0	Aug 10	0	Sep 10	2	Oct 10	0
Jun 11	0	Jul 11	0	Aug 11	0	Sep 11	0	Oct 11	0
Jun 12	0	Jul 12	1	Aug 12	0	Sep 12	1	Oct 12	0
Jun 13	0	Jul 13	0	Aug 13	0	Sep 13	1	Oct 13	0
Jun 14	0	Jul 14	0	Aug 14	0	Sep 14	3	Oct 14	0
Jun 15	0	Jul 15	0	Aug 15	0	Sep 15	1	Oct 15	0
Jun 16	0	Jul 16	0	Aug 16	1	Sep 16	1	Oct 16	1
Jun 17	0	Jul 17	0	Aug 17	0	Sep 17	0	Oct 17	2
Jun 18	0	Jul 18	0	Aug 18	0	Sep 18	0	Oct 18	2
Jun 19	0	Jul 19	0	Aug 19	0	Sep 19	0	Oct 19	0
Jun 20	0	Jul 20	0	Aug 20	0	Sep 20	0	Oct 20	0
Jun 21	1	Jul 21	0	Aug 21	0	Sep 21	0	Oct 21	0
Jun 22	0	Jul 22	1	Aug 22	0	Sep 22	1	Oct 22	0
Jun 23	0	Jul 23	0	Aug 23	1	Sep 23	1	Oct 23	0
Jun 24	0	Jul 24	0	Aug 24	0	Sep 24	1	Oct 24	0
Jun 25	0	Jul 25	0	Aug 25	1	Sep 25	0	Oct 25	1
Jun 26	0	Jul 26	0	Aug 26	1	Sep 26	1	Oct 26	1
Jun 27	0	Jul 27	0	Aug 27	0	Sep 27	1	Oct 27	0
Jun 28	0	Jul 28	0	Aug 28	0	Sep 28	1	Oct 28	0
Jun 29	0	Jul 29	0	Aug 29	1	Sep 29	2	Oct 29	0
Jun 30	0	Jul 30	0	Aug 30	1	Sep 30	1	Oct 30	1
		Jul 31	1	Aug 31	1			Oct 31	0

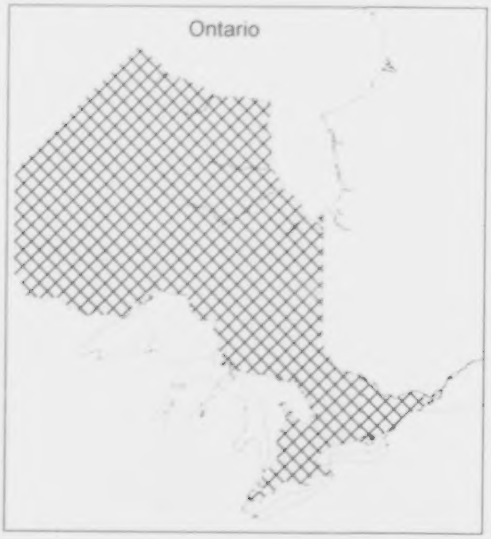
Summary Statistics - Quebec

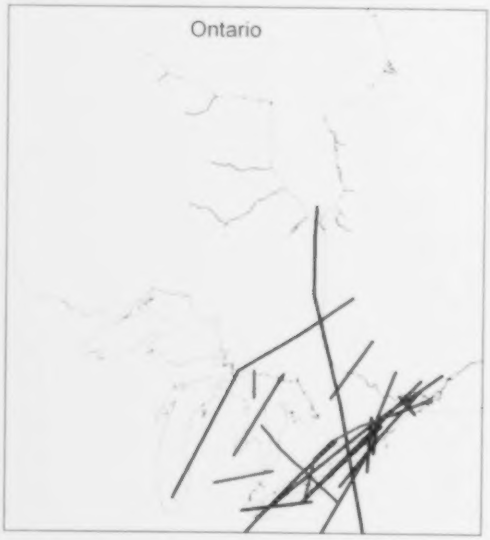
100 Yr	**TD**	**TS**	**G**	**S**	**S1**	**S2**	**S3**	**S4**	**S5**	**H**	**<H**	**ALL**	**Sys-Spd**
#	11	17	9	8	2	1	0	0	0	3	28	31	28.7
Return	9.1	5.9	11.1	12.5	50	100	NA	NA	NA	33.3	3.6	3.2	
50 Yr	**TD**	**TS**	**G**	**S**	**S1**	**S2**	**S3**	**S4**	**S5**	**H**	**<H**	**ALL**	**Sys-Spd**
#	6	11	4	7	1	1	0	0	0	2	17	19	32.0
Return	8.3	4.5	12.5	7.1	50	50	NA	NA	NA	25	2.9	2.6	

Table: storm name, year, maximum wind, etc. - Quebec

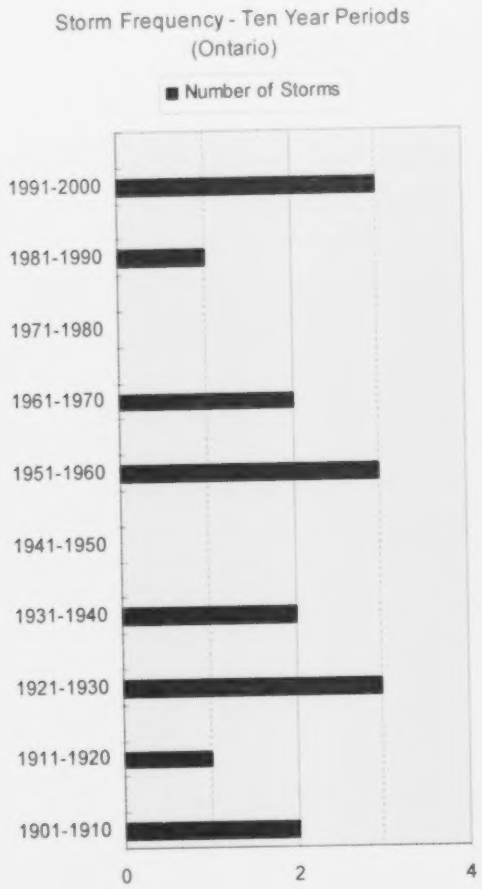
Name	**Date**	**Storm #**	**MaxWind (kts)**	**SS Scale**	**AvgSysSpd (kts)**	**Pres (mb)**	**Comment**	**ENSO**
Not Named	Sep 29, 1901	8	25	TD	24.8		E	Neutral
Not Named	Aug 23, 1915	2	25	TD	18.8		E	Neutral
Not Named	Oct 25, 1923	4	30	TD	22.0		E	Neutral
Not Named	Oct 03, 1929	2	30	TD	30.1		E	El Nino
Not Named	Aug 25, 1933	8	30	TD	12.8			Neutral
Not Named	Oct 30, 1933	20	50	TS	11.0		E	Neutral
Not Named	Jun 21, 1934	2	35	TS	16.2		E	Neutral
Not Named	Sep 14, 1937	4	35	TS	24.1			Neutral
Not Named	Sep 22, 1938	4	70	SS1	24.8	967	E	La Nina
Not Named	Sep 03, 1940	4	35	TS	32.4			El Nino
Not Named	Oct 17, 1943	9	35	TS	34.2		E	Neutral
Not Named	Aug 30, 1949	2	35	TS	29.5		E	La Nina
Barbara	Aug 16, 1953	2	50	TS	48.1		E	Neutral
Carol	Sep 08, 1953	4	55	TS	30.5		E	Neutral
Carol	Aug 31, 1954	3	75	SS1	29.2	976	E	La Nina
Edna	Sep 12, 1954	5	60	TS	40.8		E	La Nina
Hazel	Oct 16, 1954	9	60	TS	23.1		E	La Nina
Cindy	Jul 12, 1959	4	35	TS	28.5		E	Neutral
Brenda	Jul 31, 1960	3	40	TS	35.2			Neutral
Donna	Sep 13, 1960	5	60	TS	38.5		E	Neutral
Carla	Sep 14, 1961	3	30	TD	33.8		E	Neutral
Esther	Sep 26, 1961	5	30	TD	18.5			Neutral
Celia	Jul 22, 1966	3	25	TD	22.5		E	Neutral
Gerda	Sep 10, 1969	7	95	SS2	45.8	979		El Nino
Doria	Aug 29, 1971	5	35	TS	24.2		E	La Nina
David	Sep 07, 1979	4	50	TS	32.3	988	E	Neutral
Frederic	Sep 14, 1979	6	30	TD	78.7	998	E	Neutral
Gloria	Sep 28, 1985	7	50	TS	25.8	986	E	Neutral
Hugo	Sep 23, 1989	8.0	40	TS	33.6	990	E	Neutral
Fran	Sep 09, 1996	6.0	25	TD	11.4	1002	E	Neutral
Dennis	Sep 08, 1999	4.0	20	TD	8.2	1006	E	La Nina

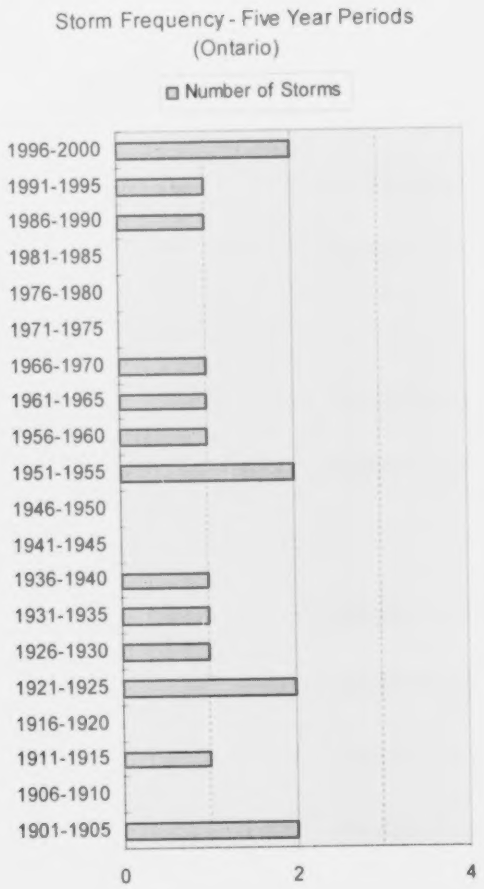
Ontario - Storm Frequencies





Decadal and Five Year Frequency - Ontario

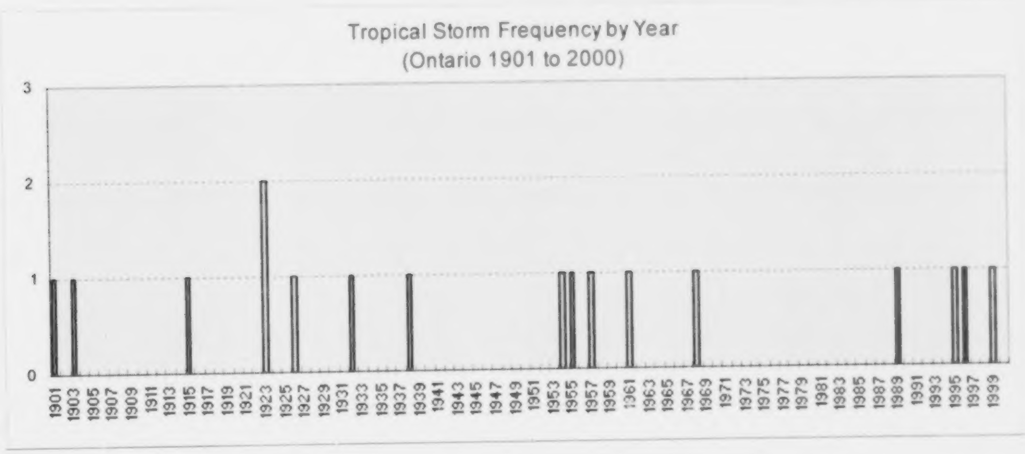




10-Year Period	Number of Storms	5-Year Period	Number of Storms
1901-1910	2	1901-1905	2
		1906-1910	0
1911-1920	1	1911-1915	1
		1916-1920	0
1921-1930	3	1921-1925	2
		1926-1930	1
1931-1940	2	1931-1935	1
		1936-1940	1
1941-1950	0	1941-1945	0
		1946-1950	0
1951-1960	3	1951-1955	2
		1956-1960	1
1961-1970	2	1961-1965	1
		1966-1970	1

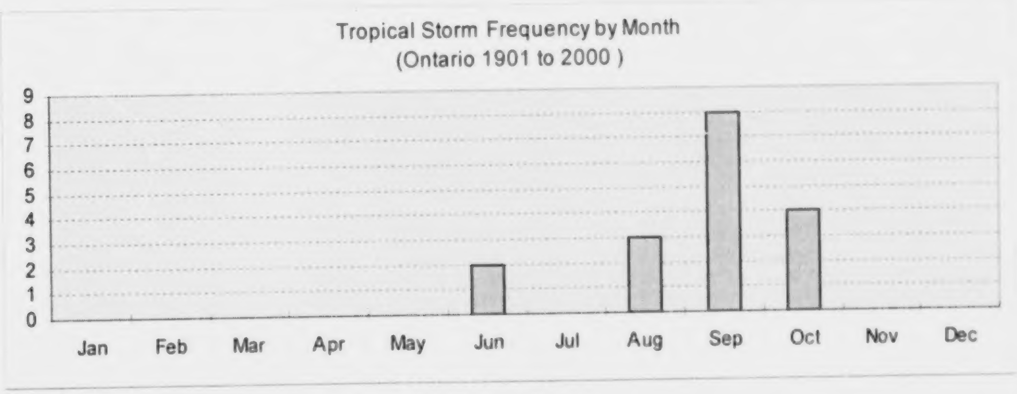
1971-1980	0	1971-1975	0
		1976-1980	0
1981-1990	1	1981-1985	0
		1986-1990	1
1991-2000	3	1991-1995	1
		1996-2000	2

Yearly Frequency - Ontario



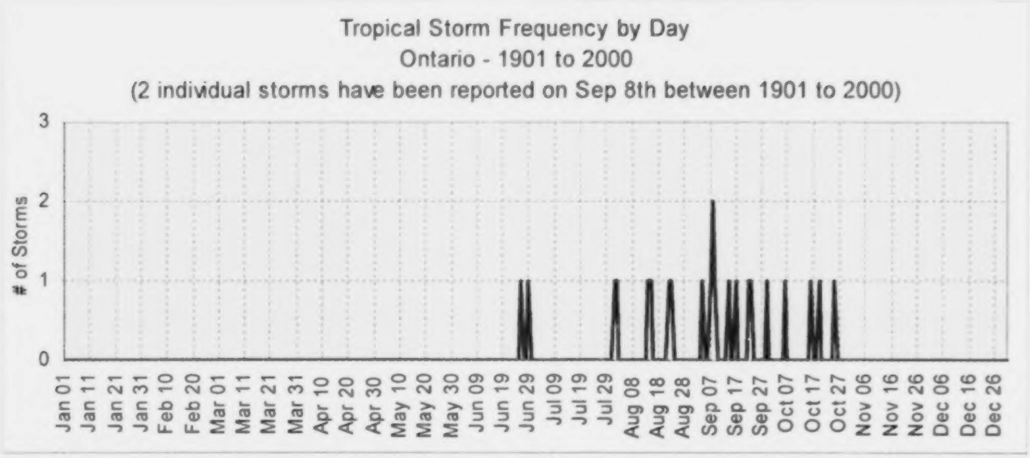
Year	#	Year	#	Year	#	Year	#
1901	1	1926	1	1955	1	1989	1
1903	1	1932	1	1957	1	1995	1
1915	1	1938	1	1961	1	1996	1
1923	2	1954	1	1968	1	1999	1

Monthly Frequency - Ontario



June	#	July	#	August	#	September	#	October	#
1957	1			1915	1	1901	1	1954	1
1968	1			1926	1	1903	1	1995	1
				1955	1	1932	1	1923	2
						1938	1		
						1961	1		
						1989	1		
						1996	1		
						1999	1		
Total	**2**	**Total**	**0**	**Total**	**3**	**Total**	**8**	**Total**	**4**

Daily Frequency - Ontario



Day	#	Day	#	Day	#	Day	#	Day	#
Jun 01	0	Jul 01	0	Aug 01	1	Sep 01	0	Oct 01	0
Jun 02	0	Jul 02	0	Aug 02	1	Sep 02	0	Oct 02	0
Jun 03	0	Jul 03	0	Aug 03	0	Sep 03	0	Oct 03	0
Jun 04	0	Jul 04	0	Aug 04	0	Sep 04	1	Oct 04	0
Jun 05	0	Jul 05	0	Aug 05	0	Sep 05	0	Oct 05	0
Jun 06	0	Jul 06	0	Aug 06	0	Sep 06	0	Oct 06	1
Jun 07	0	Jul 07	0	Aug 07	0	Sep 07	1	Oct 07	0
Jun 08	0	Jul 08	0	Aug 08	0	Sep 08	2	Oct 08	0
Jun 09	0	Jul 09	0	Aug 09	0	Sep 09	1	Oct 09	0
Jun 10	0	Jul 10	0	Aug 10	0	Sep 10	0	Oct 10	0
Jun 11	0	Jul 11	0	Aug 11	0	Sep 11	0	Oct 11	0
Jun 12	0	Jul 12	0	Aug 12	0	Sep 12	0	Oct 12	0
Jun 13	0	Jul 13	0	Aug 13	0	Sep 13	0	Oct 13	0
Jun 14	0	Jul 14	0	Aug 14	1	Sep 14	1	Oct 14	0
Jun 15	0	Jul 15	0	Aug 15	1	Sep 15	0	Oct 15	0
Jun 16	0	Jul 16	0	Aug 16	0	Sep 16	0	Oct 16	1
Jun 17	0	Jul 17	0	Aug 17	0	Sep 17	1	Oct 17	0
Jun 18	0	Jul 18	0	Aug 18	0	Sep 18	0	Oct 18	0
Jun 19	0	Jul 19	0	Aug 19	0	Sep 19	0	Oct 19	1
Jun 20	0	Jul 20	0	Aug 20	0	Sep 20	0	Oct 20	0

Day	#	Day	#	Day	#	Day	#	Day	#
Jun 21	0	Jul 21	0	Aug 21	0	Sep 21	0	Oct 21	0
Jun 22	0	Jul 22	0	Aug 22	1	Sep 22	1	Oct 22	0
Jun 23	0	Jul 23	0	Aug 23	1	Sep 23	1	Oct 23	0
Jun 24	0	Jul 24	0	Aug 24	0	Sep 24	0	Oct 24	0
Jun 25	0	Jul 25	0	Aug 25	0	Sep 25	0	Oct 25	1
Jun 26	1	Jul 26	0	Aug 26	0	Sep 26	0	Oct 26	0
Jun 27	0	Jul 27	0	Aug 27	0	Sep 27	0	Oct 27	0
Jun 28	0	Jul 28	0	Aug 28	0	Sep 28	0	Oct 28	0
Jun 29	1	Jul 29	0	Aug 29	0	Sep 29	1	Oct 29	0
Jun 30	0	Jul 30	0	Aug 30	0	Sep 30	0	Oct 30	0
		Jul 31	0	Aug 31	0			Oct 31	0

Summary Statistics - Ontario

100 Yr	**TD**	**TS**	**G**	**S**	**S1**	**S2**	**S3**	**S4**	**S5**	**H**	**<H**	**ALL**	**Sys-Spd**
#	9	7	6	1	1	0	0	0	0	1	16	17	23.9
Return	11.1	14.3	16.7	100	100	NA	NA	NA	NA	100	6.3	5.9	
50 Yr	**TD**	**TS**	**G**	**S**	**S1**	**S2**	**S3**	**S4**	**S5**	**H**	**<H**	**ALL**	**Sys-Spd**
#	5	3	2	1	1	0	0	0	0	1	8	9	27.0
Return	10	16.7	25	50	50	NA	NA	NA	NA	50	6.3	5.6	

Table: storm name, year, maximum wind, etc. - Ontario

Name	Date	Storm #	MaxWind (kts)	SS Scale	AvgSysSpd (kts)	Pres (mb)	Comment	ENSO
Not Named	Sep 29, 1901	8	25	TD	21.8		E	Neutral
Not Named	Sep 17, 1903	4	40	TS	18.1		E	La Nina
Not Named	Aug 22, 1915	2	35	TS	13.7		E	Neutral
Not Named	Oct 25, 1923	4	35	TS	14.2		E	Neutral
Not Named	Oct 19, 1923	6	25	TD	32.3		E	Neutral
Not Named	Aug 01, 1926	1	25	TD	16.9		E	Neutral
Not Named	Sep 04, 1932	3	20	TD	22.4			Neutral
Not Named	Sep 22, 1938	4	35	TS	23.9	987	E	La Nina
Hazel	Oct 16, 1954	9	70	SS1	27.3		E	La Nina
Connie	Aug 14, 1955	2	30	TD	11.8	998		La Nina
Audrey	Jun 29, 1957	2	50	TS	51.6		E	El Nino
Carla	Sep 14, 1961	3	30	TD	31.4		E	Neutral
Candy	Jun 26, 1968	3	25	TD	27.0		E	Neutral
Hugo	Sep 23, 1989	8	35	TS	55.9	988	E	Neutral
Opal	Oct 06, 1995	15	40	TS	19.2	991	E	Neutral
Fran	Sep 07, 1996	6	30	TD	10.3	1000		Neutral
Dennis	Sep 08, 1999	4	20	TD	8.2	1006	E	La Nina

CANADIAN MARINE FORECAST AREA STATISTICS

Map - Atlantic Canada Marine Areas

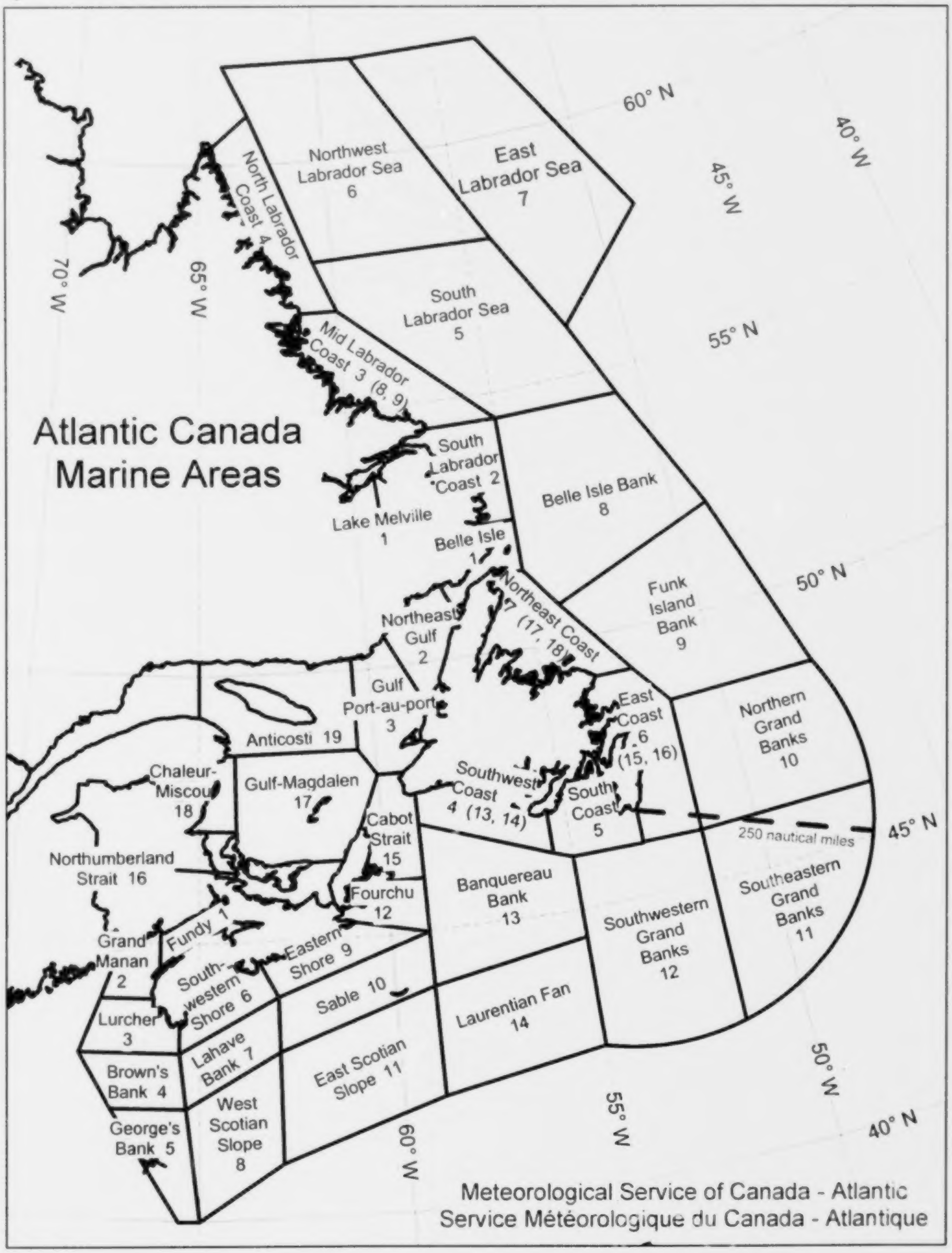
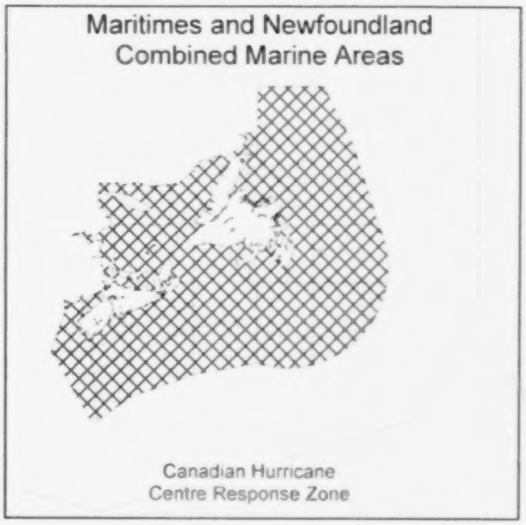

Atlantic Canada Marine Areas
Northwest Labrador Sea 6
East Labrador Sea 7
North Labrador Coast 4
South Labrador Sea 5
Mid Labrador Coast 3 (8, 9)
South Labrador Coast 2
Lake Melville 1
Belle Isle 1
Belle Isle Bank 8
Funk Island Bank 9
Northeast Coast 7 (17, 18)
Northeast Gulf 2
Gulf Port-au-port 3
Anticosti 19
Gulf-Magdalen 17
Chaleur-Miscou 18
Northumberland Strait 16
Cabot Strait 15
Fourchu 12
Southwest Coast 4 (13, 14)
South Coast 5
East Coast 6 (15, 16)
Northern Grand Banks 10
250 nautical miles
Banquereau Bank 13
Southwestern Grand Banks 12
Southeastern Grand Banks 11
Laurentian Fan 14
Fundy 1
Grand Manan 2
South-western Shore 6
Eastern Shore 9
Sable 10
Lurcher 3
Lahave Bank 7
East Scotian Slope 11
Brown's Bank 4
George's Bank 5
West Scotian Slope 8
70° W
65° W
60° W
55° W
50° W
45° W
40° W
60° N
55° N
50° N
45° N
40° N
Meteorological Service of Canada - Atlantic
Service Météorologique du Canada - Atlantique

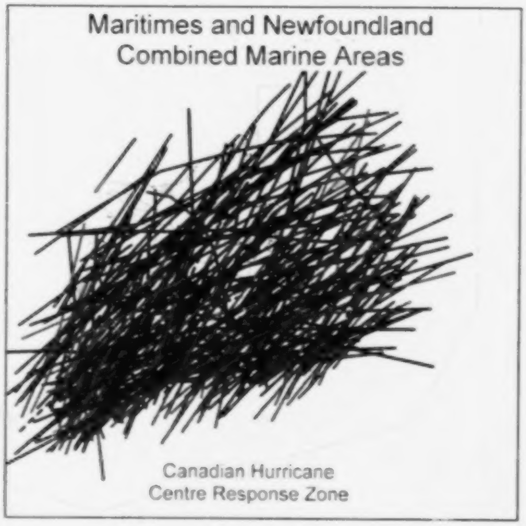
Table - Summary Statistics For Atlantic Canada Combined Marine Areas

100 Year (1901–2000)	**TD**	**TS**	**G**	**S**	**S1**	**S2**	**S3**	**S4**	**S5**	**H**	**<H**	**ALL**	**Spd**
Combined Maritimes and Newfoundland Marine Areas	9	90	45	45	69	20	5	1	0	95	99	194	28.4
All Martimes Marine Areas	9	72	34	38	53	15	5	1	0	74	81	155	28.6
All Newfoundland Marine Areas	5	88	42	46	44	8	1	1	0	54	93	147	29.7
Fundy and Grand Manan	2	15	9	6	3	3	1	0	0	7	17	24	30.6
Exposed Atlantic Waters	7	81	39	42	68	20	5	1	0	94	88	182	28.4
Gulf of St. Lawrence Waters	5	32	17	15	5	4	0	0	0	9	37	46	28.9
Northeast Newfoundland Waters	2	43	19	24	9	2	0	0	0	11	45	56	30.3

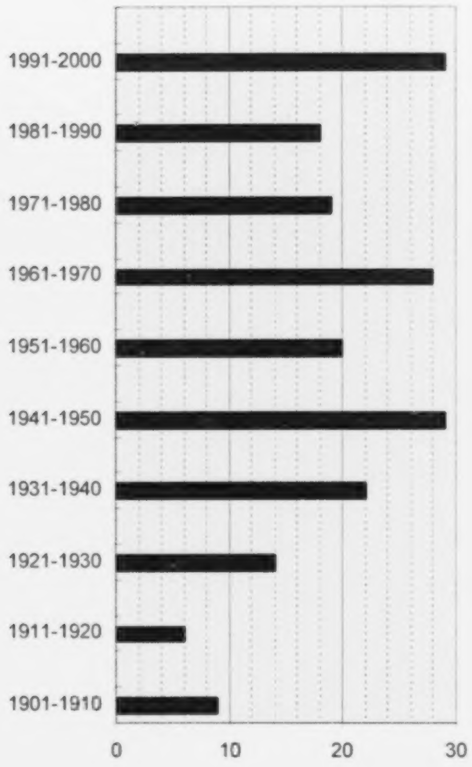
50 Year (1951–2000)	**TD**	**TS**	**G**	**S**	**S1**	**S2**	**S3**	**S4**	**S5**	**H**	**<H**	**ALL**	**Spd**
Combined Maritimes and Newfoundland Marine Areas	6	53	17	36	42	8	4	1	0	55	59	114	29.1
All Martimes Marine Areas	4	44	14	30	30	6	4	1	0	41	48	89	30
All Newfoundland Marine Areas	3	53	20	33	25	4	1	1	0	31	56	87	30.5
Fundy and Grand Manan	1	7	4	3	1	1	1	0	0	3	8	11	28.9
Exposed Atlantic Waters	6	48	15	33	41	8	4	1	0	54	54	108	29.1
Gulf of St. Lawrence Waters	1	19	8	11	3	2	0	0	0	5	20	25	30.1
Northeast Newfoundland Waters	0	20	9	11	6	1	0	0	0	7	20	27	31.6

All Maritimes and Newfoundland Marine Areas Combined

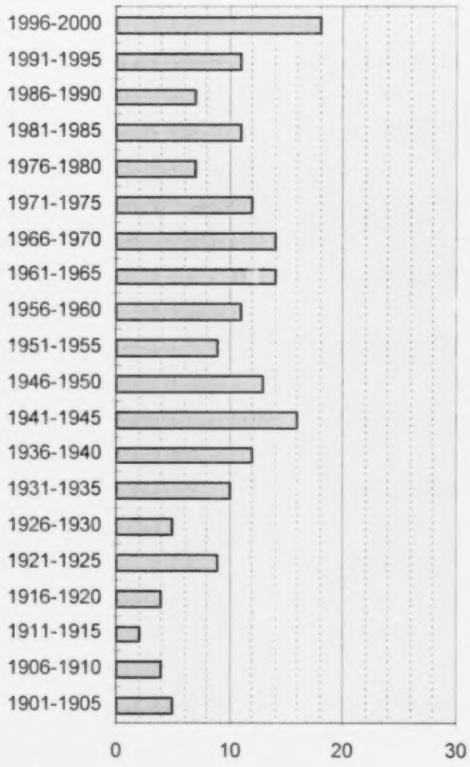

Maritimes and Newfoundland
Combined Marine Areas
Canadian Hurricane
Centre Response Zone


Maritimes and Newfoundland
Combined Marine Areas
Canadian Hurricane
Centre Response Zone

Decadal and Five Year Frequency - All Newfoundland & Maritimes Marine Areas Combined



Storm Frequency - Ten Year Periods
(All Maritimes and Newfoundland
Marine Areas Combined)

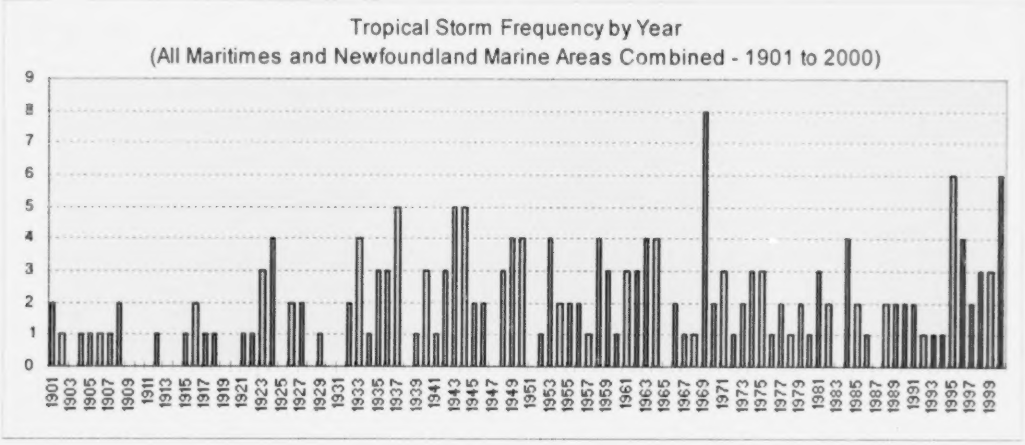


Storm Frequency - Five Year Periods
(All Maritimes and Newfoundland
Marine Areas Combined)

10-Year Period	Number of Storms	5-Year Period	Number of Storms
1901-1910	9	1901-1905	5
		1906-1910	4
1911-1920	6	1911-1915	2
		1916-1920	4
1921-1930	14	1921-1925	9
		1926-1930	5
1931-1940	22	1931-1935	10
		1936-1940	12
1941-1950	29	1941-1945	16
		1946-1950	13
1951-1960	20	1951-1955	9
		1956-1960	11
1961-1970	28	1961-1965	14

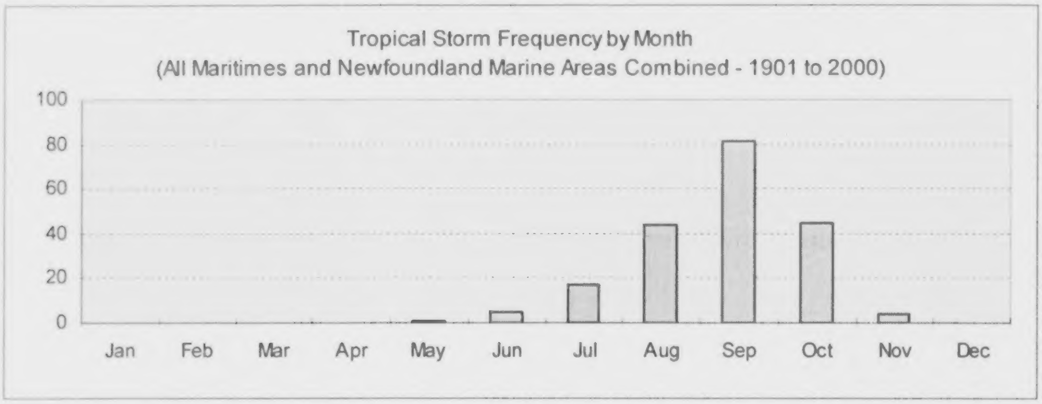
10-Year Period	Number of Storms	5-Year Period	Number of Storms
		1966-1970	14
1971-1980	19	1971-1975	12
		1976-1980	7
1981-1990	18	1981-1985	11
		1986-1990	7
1991-2000	29	1991-1995	11
		1996-2000	18

Yearly Frequency - All Newfoundland & Maritimes Marine Areas Combined



Year	#	Year	#	Year	#	Year	#	Year	#
1901	2	1921	1	1941	1	1961	3	1981	3
1902	1	1922	1	1942	3	1962	3	1982	2
1903	0	1923	3	1943	5	1963	4	1983	0
1904	1	1924	4	1944	5	1964	4	1984	4
1905	1	1925	0	1945	2	1965	0	1985	2
1906	1	1926	2	1946	2	1966	2	1986	1
1907	1	1927	2	1947	0	1967	1	1987	0
1908	2	1928	0	1948	3	1968	1	1988	2
1909	0	1929	1	1949	4	1969	8	1989	2
1910	0	1930	0	1950	4	1970	2	1990	2
1911	0	1931	0	1951	0	1971	3	1991	2
1912	1	1932	2	1952	1	1972	1	1992	1
1913	0	1933	4	1953	4	1973	2	1993	1
1914	0	1934	1	1954	2	1974	3	1994	1
1915	1	1935	3	1955	2	1975	3	1995	6
1916	2	1936	3	1956	2	1976	1	1996	4
1917	1	1937	5	1957	1	1977	2	1997	2
1918	1	1938	0	1958	4	1978	1	1998	3
1919	0	1939	1	1959	3	1979	2	1999	3
1920	0	1940	3	1960	1	1980	1	2000	6

Monthly Frequency - All Newfoundland & Maritimes Marine Areas Combined

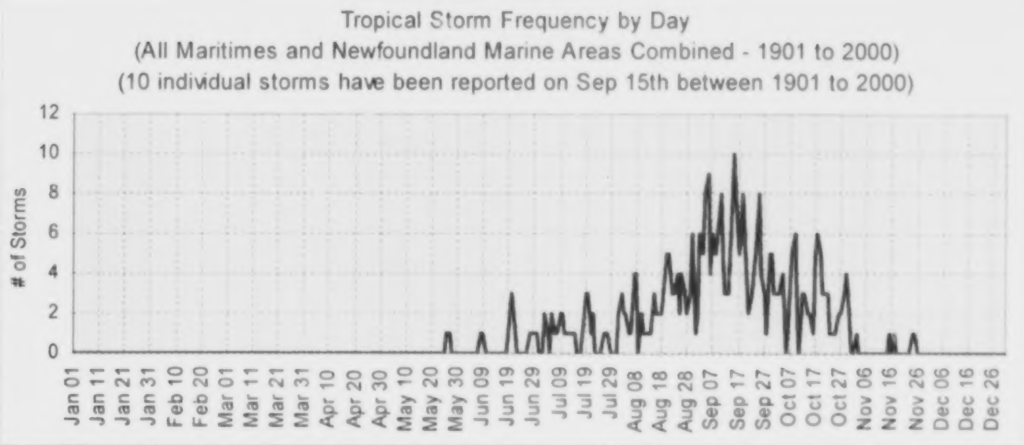


Note: Storms that span months were counted in both months

May	#	June	#	July	#	August	#	September	#	October	#	November	#
1940	1	1934	1	1916	1	1908	1	1901	1	1902	1	1912	1
		1945	1	1944	1	1924	1	1904	1	1905	1	1924	1
		1959	1	1946	1	1926	1	1906	1	1907	1	1981	1
		1982	1	1959	1	1927	1	1908	1	1929	1	1991	1
		1995	1	1971	1	1933	1	1915	1	1935	1		
				1973	1	1935	1	1916	1	1939	1		
				1974	1	1936	1	1917	1	1944	1		
				1985	1	1943	1	1918	1	1949	1		
				1996	1	1944	1	1921	1	1950	1		
				1966	2	1950	1	1922	1	1959	1		
				1975	2	1953	1	1923	1	1968	1		
				1995	2	1955	1	1926	1	1970	1		
				1997	2	1956	1	1927	1	1973	1		
						1960	1	1933	1	1975	1		
						1962	1	1935	1	1977	1		
						1970	1	1941	1	1979	1		
						1974	1	1942	1	1984	1		
						1976	1	1945	1	1990	1		
						1981	1	1946	1	1991	1		
						1984	1	1949	1	1992	1		
						1986	1	1952	1	1996	1		
						1989	1	1953	1	1999	1		
						1990	1	1955	1	1901	2		
						1991	1	1956	1	1923	2		
						1994	1	1957	1	1933	2		
						1995	1	1958	1	1942	2		
						1998	1	1961	1	1943	2		
						1937	2	1962	1	1953	2		
						1949	2	1967	1	1961	2		
						1963	2	1972	1	1962	2		
						1971	2	1974	1	1963	2		
						1988	2	1977	1	1969	2		
						1958	3	1978	1	2000	3		
						1969	4	1979	1				
								1980	1				

May	#	June	#	July	#	August	#	September	#	October	#	November	#
								1981	1				
								1982	1				
								1985	1				
								1989	1				
								1993	1				
								1924	2				
								1932	2				
								1936	2				
								1940	2				
								1943	2				
								1944	2				
								1950	2				
								1954	2				
								1969	2				
								1984	2				
								1995	2				
								1996	2				
								1998	2				
								1999	2				
								1937	3				
								1948	3				
								2000	3				
								1964	4				
Total	**1**	**Total**	**5**	**Total**	**17**	**Total**	**44**	**Total**	**81**	**Total**	**45**	**Total**	**4**

Daily Frequency - All Newfoundland & Maritimes Marine Areas Combined



Tropical Storm Frequency by Day
(All Maritimes and Newfoundland Marine Areas Combined - 1901 to 2000)
(10 individual storms have been reported on Sep 15th between 1901 to 2000)

Note: Storms will generally span more than one day. The storm is counted in each day

Day	#	Day	#	Day	#	Day	#	Day	#	Day	#
Jan 01	0	Mar 01	0	May 01	0	Jul 01	0	Sep 01	2	Nov 01	0
Jan 02	0	Mar 02	0	May 02	0	Jul 02	0	Sep 02	6	Nov 02	1
Jan 03	0	Mar 03	0	May 03	0	Jul 03	2	Sep 03	5	Nov 03	0
Jan 04	0	Mar 04	0	May 04	0	Jul 04	1	Sep 04	8	Nov 04	0
Jan 05	0	Mar 05	0	May 05	0	Jul 05	0	Sep 05	9	Nov 05	0

Day	#	Day	#	Day	#	Day	#	Day	#	Day	#
Jan 06	0	Mar 06	0	May 06	0	Jul 06	2	Sep 06	4	Nov 06	0
Jan 07	0	Mar 07	0	May 07	0	Jul 07	1	Sep 07	6	Nov 07	0
Jan 08	0	Mar 08	0	May 08	0	Jul 08	1	Sep 08	5	Nov 08	0
Jan 09	0	Mar 09	0	May 09	0	Jul 09	2	Sep 09	6	Nov 09	0
Jan 10	0	Mar 10	0	May 10	0	Jul 10	2	Sep 10	8	Nov 10	0
Jan 11	0	Mar 11	0	May 11	0	Jul 11	1	Sep 11	5	Nov 11	0
Jan 12	0	Mar 12	0	May 12	0	Jul 12	1	Sep 12	3	Nov 12	0
Jan 13	0	Mar 13	0	May 13	0	Jul 13	1	Sep 13	3	Nov 13	0
Jan 14	0	Mar 14	0	May 14	0	Jul 14	1	Sep 14	5	Nov 14	0
Jan 15	0	Mar 15	0	May 15	0	Jul 15	1	Sep 15	10	Nov 15	1
Jan 16	0	Mar 16	0	May 16	0	Jul 16	0	Sep 16	8	Nov 16	0
Jan 17	0	Mar 17	0	May 17	0	Jul 17	0	Sep 17	5	Nov 17	1
Jan 18	0	Mar 18	0	May 18	0	Jul 18	1	Sep 18	6	Nov 18	0
Jan 19	0	Mar 19	0	May 19	0	Jul 19	3	Sep 19	8	Nov 19	0
Jan 20	0	Mar 20	0	May 20	0	Jul 20	3	Sep 20	4	Nov 20	0
Jan 21	0	Mar 21	0	May 21	0	Jul 21	1	Sep 21	2	Nov 21	0
Jan 22	0	Mar 22	0	May 22	0	Jul 22	2	Sep 22	3	Nov 22	0
Jan 23	0	Mar 23	0	May 23	0	Jul 23	0	Sep 23	4	Nov 23	0
Jan 24	0	Mar 24	0	May 24	0	Jul 24	0	Sep 24	5	Nov 24	1
Jan 25	0	Mar 25	0	May 25	0	Jul 25	0	Sep 25	8	Nov 25	1
Jan 26	0	Mar 26	0	May 26	1	Jul 26	1	Sep 26	4	Nov 26	0
Jan 27	0	Mar 27	0	May 27	1	Jul 27	1	Sep 27	3	Nov 27	0
Jan 28	0	Mar 28	0	May 28	0	Jul 28	1	Sep 28	1	Nov 28	0
Jan 29	0	Mar 29	0	May 29	0	Jul 29	0	Sep 29	5	Nov 29	0
Jan 30	0	Mar 30	0	May 30	0	Jul 30	0	Sep 30	5	Nov 30	0
Jan 31	0	Mar 31	0	May 31	0	Jul 31	0	Oct 01	3	Dec 01	0
Feb 01	0	Apr 01	0	Jun 01	0	Aug 01	2	Oct 02	3	Dec 02	0
Feb 02	0	Apr 02	0	Jun 02	0	Aug 02	3	Oct 03	3	Dec 03	0
Feb 03	0	Apr 03	0	Jun 03	0	Aug 03	2	Oct 04	4	Dec 04	0
Feb 04	0	Apr 04	0	Jun 04	0	Aug 04	2	Oct 05	2	Dec 05	0
Feb 05	0	Apr 05	0	Jun 05	0	Aug 05	1	Oct 06	0	Dec 06	0
Feb 06	0	Apr 06	0	Jun 06	0	Aug 06	1	Oct 07	3	Dec 07	0
Feb 07	0	Apr 07	0	Jun 07	0	Aug 07	4	Oct 08	5	Dec 08	0
Feb 08	0	Apr 08	0	Jun 08	1	Aug 08	4	Oct 09	6	Dec 09	0
Feb 09	0	Apr 09	0	Jun 09	1	Aug 09	0	Oct 10	2	Dec 10	0
Feb 10	0	Apr 10	0	Jun 10	0	Aug 10	2	Oct 11	0	Dec 11	0
Feb 11	0	Apr 11	0	Jun 11	0	Aug 11	1	Oct 12	3	Dec 12	0
Feb 12	0	Apr 12	0	Jun 12	0	Aug 12	1	Oct 13	3	Dec 13	0
Feb 13	0	Apr 13	0	Jun 13	0	Aug 13	1	Oct 14	2	Dec 14	0
Feb 14	0	Apr 14	0	Jun 14	0	Aug 14	1	Oct 15	2	Dec 15	0
Feb 15	0	Apr 15	0	Jun 15	0	Aug 15	3	Oct 16	1	Dec 16	0
Feb 16	0	Apr 16	0	Jun 16	0	Aug 16	2	Oct 17	5	Dec 17	0
Feb 17	0	Apr 17	0	Jun 17	0	Aug 17	2	Oct 18	6	Dec 18	0
Feb 18	0	Apr 18	0	Jun 18	0	Aug 18	2	Oct 19	5	Dec 19	0
Feb 19	0	Apr 19	0	Jun 19	1	Aug 19	4	Oct 20	3	Dec 20	0
Feb 20	0	Apr 20	0	Jun 20	3	Aug 20	5	Oct 21	3	Dec 21	0
Feb 21	0	Apr 21	0	Jun 21	2	Aug 21	5	Oct 22	3	Dec 22	0
Feb 22	0	Apr 22	0	Jun 22	0	Aug 22	3	Oct 23	1	Dec 23	0
Feb 23	0	Apr 23	0	Jun 23	0	Aug 23	3	Oct 24	1	Dec 24	0
Feb 24	0	Apr 24	0	Jun 24	0	Aug 24	4	Oct 25	1	Dec 25	0
Feb 25	0	Apr 25	0	Jun 25	0	Aug 25	2	Oct 26	2	Dec 26	0
Feb 26	0	Apr 26	0	Jun 26	0	Aug 26	4	Oct 27	2	Dec 27	0
Feb 27	0	Apr 27	0	Jun 27	1	Aug 27	3	Oct 28	3	Dec 28	0
Feb 28	0	Apr 28	0	Jun 28	1	Aug 28	2	Oct 29	4	Dec 29	0
Feb 29	0	Apr 29	0	Jun 29	1	Aug 29	3	Oct 30	3	Dec 30	0

Summary Statistics - All Newfoundland & Maritimes Marine Areas Combined

100 Yr	TD	TS	G	S	S1	S2	S3	S4	S5	H	<H	ALL	Sys-Spd
#	9	90	45	45	69	20	5	1	0	95	99	194	28.4
Return	11.1	1.1	2.2	2.2	1.4	5	20	100	NA	1.1	1	0.5	
50 Yr	**TD**	**TS**	**G**	**S**	**S1**	**S2**	**S3**	**S4**	**S5**	**H**	**<H**	**ALL**	**Sys-Spd**
#	6	53	17	36	42	8	4	1	0	55	59	114	29.1
Return	8.3	0.9	2.9	1.4	1.2	6.3	12.5	50	NA	0.9	0.8	0.4	

Table: storm name, number, date, maximum wind, etc. - All Newfoundland & Maritimes Marine Areas Combined

Name	Date	Storm #	MaxWind (kts)	SS Scale	AvgSysSpd (kts)	Pres (mb)	Comment	ENSO
Not Named	Oct 01, 1901	8	35	TS	28.4		E	Neutral
Not Named	Oct 13, 1901	9	35	TS	25.4		E	Neutral
Not Named	Oct 13, 1902	4	40	TS	36.3		E	El Nino
Not Named	Sep 15, 1904	2	65	SS1	59.8		E	El Nino
Not Named	Oct 13, 1905	4	40	TS	17.7		E	El Nino
Not Named	Sep 11, 1906	3	80	SS1	39.2			La Nina
Not Named	Oct 19, 1907	4	45	TS	35.4			Neutral
Not Named	Aug 02, 1908	2	85	SS2	23.9			La Nina
Not Named	Sep 17, 1908	4	70	SS1	20.9			La Nina
Not Named	Nov 24, 1912	6	65	SS1	39.4			Neutral
Not Named	Sep 10, 1915	3	55	TS	23.1		E	Neutral
Not Named	Jul 22, 1916	2	45	TS	40.6			La Nina
Not Named	Sep 24, 1916	10	85	SS2	40.5			La Nina
Not Named	Sep 05, 1917	2	90	SS2	35.9			Neutral
Not Named	Sep 06, 1918	4	65	SS1	20.3			El Nino
Not Named	Sep 16, 1921	3	90	SS2	52.1			Neutral
Not Named	Sep 23, 1922	2	95	SS2	18.9		E	La Nina
Not Named	Sep 09, 1923	1	70	SS1	23.3			Neutral
Not Named	Oct 01, 1923	2	85	SS2	17.5		E	Neutral
Not Named	Oct 27, 1923	4	35	TS	20.4		E	Neutral
Not Named	Aug 26, 1924	2	90	SS2	32.7			La Nina
Not Named	Sep 04, 1924	3	75	SS1	24.8		E	La Nina
Not Named	Sep 18, 1924	4	40	TS	33.2		E	La Nina
Not Named	Nov 15, 1924	8	40	TS	31.9		E	La Nina
Not Named	Aug 07, 1926	2	80	SS1	24.1			Neutral
Not Named	Sep 22, 1926	4	65	SS1	16.7		E	Neutral
Not Named	Aug 24, 1927	1	90	SS2	47.4		E	Neutral
Not Named	Sep 29, 1927	4	80	SS1	13.0		E	Neutral
Not Named	Oct 04, 1929	2	25	TD	62.0		E	El Nino
Not Named	Sep 09, 1932	4	90	SS2	16.5			Neutral
Not Named	Sep 17, 1932	5	35	TS	25.0		E	Neutral
Not Named	Aug 29, 1933	9	35	TS	22.7			Neutral
Not Named	Sep 18, 1933	13	65	SS1	16.3		E	Neutral
Not Named	Oct 07, 1933	18	100	SS3	24.3			Neutral
Not Named	Oct 28, 1933	20	60	TS	15.0			Neutral
Not Named	Jun 20, 1934	2	40	TS	19.5		E	Neutral
Not Named	Aug 24, 1935	1	80	SS1	14.8			Neutral

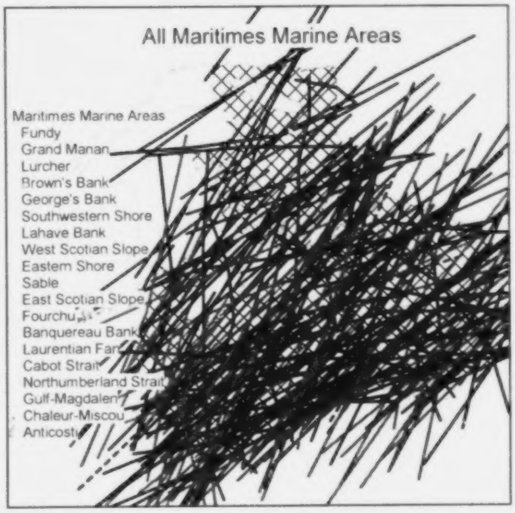
Name	Date	Storm #	MaxWind (kts)	SS Scale	AvgSysSpd (kts)	Pres (mb)	Comment	ENSO
Not Named	Sep 07, 1935	2	80	SS1	40.0		E	Neutral
Not Named	Oct 01, 1935	4	75	SS1	29.2		E	Neutral
Not Named	Aug 10, 1936	6	40	TS	20.5		E	Neutral
Not Named	Sep 19, 1936	13	80	SS1	28.4			Neutral
Not Named	Sep 24, 1936	15	75	SS1	23.0			Neutral
Not Named	Aug 01, 1937	1	50	TS	15.5			Neutral
Not Named	Aug 07, 1937	2	45	TS	13.7			Neutral
Not Named	Sep 13, 1937	4	70	SS1	26.9			Neutral
Not Named	Sep 26, 1937	7	80	SS1	23.6		E	Neutral
Not Named	Sep 29, 1937	8	35	TS	24.1		E	Neutral
Not Named	Oct 17, 1939	4	95	SS2	38.8			Neutral
Not Named	May 26, 1940	1	35	TS	12.3			El Nino
Not Named	Sep 02, 1940	4	70	SS1	21.2			El Nino
Not Named	Sep 16, 1940	5	70	SS1	17.5			El Nino
Not Named	Sep 25, 1941	3	35	TS	19.4			Neutral
Not Named	Sep 22, 1942	5	35	TS	13.2		E	La Nina
Not Named	Oct 04, 1942	7	40	TS	27.3		E	La Nina
Not Named	Oct 18, 1942	9	35	TS	37.9			La Nina
Not Named	Aug 26, 1943	3	65	SS1	30.4			Neutral
Not Named	Sep 09, 1943	4	75	SS1	28.6			Neutral
Not Named	Sep 15, 1943	5	40	TS	27.2		E	Neutral
Not Named	Oct 03, 1943	8	45	TS	22.4			Neutral
Not Named	Oct 17, 1943	9	40	TS	38.3		E	Neutral
Not Named	Jul 19, 1944	1	50	TS	37.2		E	La Nina
Not Named	Aug 04, 1944	3	35	TS	10.6			La Nina
Not Named	Sep 15, 1944	7	35	TS	40.9		E	La Nina
Not Named	Sep 26, 1944	9	80	SS1	21.5			La Nina
Not Named	Oct 21, 1944	11	45	TS	34.0		E	La Nina
Not Named	Jun 27, 1945	1	55	TS	15.1			Neutral
Not Named	Sep 19, 1945	9	25	TD	33.4		E	Neutral
Not Named	Jul 09, 1946	2	50	TS	19.4		E	Neutral
Not Named	Sep 15, 1946	4	70	SS1	27.5			Neutral
Not Named	Sep 01, 1948	3	60	TS	25.3		E	Neutral
Not Named	Sep 15, 1948	6	80	SS1	37.2			Neutral
Not Named	Sep 25, 1948	7	55	TS	36.9		E	Neutral
Not Named	Aug 26, 1949	1	65	SS1	25.0		E	La Nina
Not Named	Aug 30, 1949	2	30	TD	27.9		E	La Nina
Not Named	Sep 09, 1949	4	85	SS2	36.4			La Nina
Not Named	Oct 19, 1949	11	45	TS	12.3		E	La Nina
Able	Aug 21, 1950	1	65	SS1	26.8			Neutral
Charlie	Sep 05, 1950	3	45	TS	25.7		E	Neutral
Dog	Sep 12, 1950	4	60	TS	17.1		E	Neutral
George	Oct 04, 1950	7	95	SS2	39.4			Neutral
Baker	Sep 07, 1952	3	75	SS1	34.5	969		Neutral
Barbara	Aug 15, 1953	2	75	SS1	37.5			Neutral
Carol	Sep 07, 1953	4	70	SS1	32.3			Neutral
Not Named	Oct 07, 1953	10	60	TS	22.7		E	Neutral
Hazel	Oct 12, 1953	12	40	TS	26.5		E	Neutral
Dolly	Sep 02, 1954	4	70	SS1	34.7			La Nina
Edna	Sep 12, 1954	5	65	SS1	44.8		E	La Nina
Diane	Aug 20, 1955	3	35	TS	24.6			La Nina
Ione	Sep 21, 1955	9	75	SS1	25.9			La Nina
Betsy	Aug 18, 1956	3	65	SS1	23.5			La Nina
Carla	Sep 11, 1956	4	25	TD	31.1			La Nina
Frieda	Sep 26, 1957	7	55	TS	21.5		E	El Nino

Name	Date	Storm #	MaxWind (kts)	SS Scale	AvgSysSpd (kts)	Pres (mb)	Comment	ENSO
Becky	Aug 17, 1958	2	25	TD	39.8		E	Neutral
Cleo	Aug 19, 1958	3	80	SS1	33.1	979		Neutral
Daisy	Aug 29, 1958	4	90	SS2	31.4	982		Neutral
Helene	Sep 29, 1958	8	85	SS2	38.3	959		Neutral
Not Named	Jun 19, 1959	3	70	SS1	19.5		E	Neutral
Cindy	Jul 11, 1959	4	50	TS	29.5			Neutral
Gracie	Oct 02, 1959	8	25	TD	30.3		E	Neutral
Cleo	Aug 20, 1960	4	80	SS1	21.1			Neutral
Not Named	Sep 15, 1961	6	35	TS	60.6			Neutral
Frances	Oct 08, 1961	7	100	SS3	14.5			Neutral
Gerda	Oct 20, 1961	8	60	TS	20.5			Neutral
Alma	Aug 30, 1962	1	45	TS	19.4			Neutral
Daisy	Oct 07, 1962	4	70	SS1	16.6	975		Neutral
Ella	Oct 22, 1962	5	65	SS1	40.4			Neutral
Arlene	Aug 10, 1963	1	80	SS1	28.0			El Nino
Beulah	Aug 27, 1963	2	70	SS1	44.5			El Nino
Flora	Oct 12, 1963	7	75	SS1	23.6			El Nino
Ginny	Oct 29, 1963	8	95	SS2	29.1	958		El Nino
Cleo	Sep 04, 1964	5	75	SS1	26.2			La Nina
Dora	Sep 14, 1964	6	55	TS	28.3		E	La Nina
Ethel	Sep 14, 1964	7	75	SS1	24.8			La Nina
Gladys	Sep 24, 1964	9	65	SS1	36.2	982		La Nina
Becky	Jul 03, 1966	2	60	TS	17.6			Neutral
Celia	Jul 21, 1966	3	70	SS1	33.2	998		Neutral
Arlene	Sep 03, 1967	1	75	SS1	21.3			La Nina
Gladys	Oct 21, 1968	8	65	SS1	31.3			Neutral
Anna	Aug 03, 1969	1	55	TS	35.0	1002		El Nino
Blanche	Aug 12, 1969	2	75	SS1	41.4			El Nino
Camille	Aug 22, 1969	3	55	TS	38.2			El Nino
Debbie	Aug 23, 1969	4	90	SS2	24.2			El Nino
Gerda	Sep 09, 1969	7	110	SS3	44.6	979		El Nino
Not Named	Sep 25, 1969	10	65	SS1	22.1			El Nino
Kara	Oct 18, 1969	14	90	SS2	45.0			El Nino
Not Named	Oct 30, 1969	17	50	TS	8.7		E	El Nino
Not Named	Aug 18, 1970	4	60	TS	36.9	992		La Nina
Not Named	Oct 17, 1970	9	90	SS2	49.6	974		La Nina
Arlene	Jul 06, 1971	1	55	TS	26.3	1000		La Nina
Not Named	Aug 06, 1971	2	75	SS1	37.6	974		La Nina
Beth	Aug 15, 1971	3	75	SS1	15.0	977		La Nina
Carrie	Sep 04, 1972	4	50	TS	9.8		E	El Nino
Alice	Jul 06, 1973	1	65	SS1	31.4	995		La Nina
Gilda	Oct 27, 1973	8	55	TS	33.9		S	La Nina
Subtrop 2	Jul 19, 1974	2	45	TS	17.2		S	Neutral
Subtrop 3	Aug 14, 1974	3	50	TS	12.7	992	S	Neutral
Dolly	Sep 05, 1974	7	40	TS	31.7			Neutral
Amy	Jul 03, 1975	1	50	TS	32.5	986		La Nina
Blanche	Jul 28, 1975	2	75	SS1	29.0	980		La Nina
Gladys	Oct 03, 1975	7	110	SS3	52.0	950		La Nina
Candice	Aug 23, 1976	4	80	SS1	18.1			El Nino
Dorothy	Sep 29, 1977	4	65	SS1	28.3	988		Neutral
Evelyn	Oct 15, 1977	5	70	SS1	26.3	996		Neutral
Ella	Sep 04, 1978	6	120	SS4	39.1	956		Neutral
David	Sep 08, 1979	4	60	TS	36.3	985	E	Neutral
Subtrop 1	Oct 24, 1979	9	65	SS1	38.8	985	S	Neutral
Georges	Sep 08, 1980	7	70	SS1	38.9	993		Neutral

Name	Date	Storm #	MaxWind (kts)	SS Scale	AvgSysSpd (kts)	Pres (mb)	Comment	ENSO
Cindy	Aug 05, 1981	3	45	TS	21.5	1005		Neutral
Emily	Sep 07, 1981	5	65	SS1	7.2	978		Neutral
Subtrop 3	Nov 17, 1981	12	50	TS	17.8	985	S	Neutral
Subtrop 1	Jun 20, 1982	2	60	TS	39.9	992	S	El Nino
Debby	Sep 18, 1982	5	110	SS3	26.6	954		El Nino
Subtrop 1	Aug 20, 1984	1	45	TS	21.9	1000	S	Neutral
Cesar	Sep 02, 1984	4	50	TS	14.4	994		Neutral
Diana	Sep 15, 1984	5	60	TS	39.7	992		Neutral
Josephine	Oct 17, 1984	11	60	TS	9.1	990		Neutral
Ana	Jul 19, 1985	1	60	TS	24.6	996		Neutral
Gloria	Sep 28, 1985	7	50	TS	22.9	987	E	Neutral
Charley	Aug 19, 1986	3	45	TS	13.8	1000		El Nino
Alberto	Aug 07, 1988	1	35	TS	26.2	1002		La Nina
Chris	Aug 30, 1988	3	25	TD	38.1	1008		La Nina
Dean	Aug 07, 1989	4	80	SS1	31.6	972		Neutral
Gabrielle	Sep 13, 1989	7	30	TD	17.2	1009		Neutral
Bertha	Aug 02, 1990	2	70	SS1	17.7	973		Neutral
Lili	Oct 14, 1990	12	50	TS	35.8	995		Neutral
Bob	Aug 20, 1991	2	45	TS	25.7	998		El Nino
Unnamed	Nov 02, 1991	8	65	SS1	19.6	981		El Nino
Frances	Oct 26, 1992	7	60	TS	18.7	985		Neutral
Floyd	Sep 09, 1993	6	65	SS1	41.1	990		Neutral
Chris	Aug 23, 1994	3	45	TS	35.7	1003		Neutral
Allison	Jun 08, 1995	1	50	TS	26.0	982	E	Neutral
Barry	Jul 09, 1995	2	50	TS	22.0	996		Neutral
Chantal	Jul 20, 1995	3	50	TS	31.6	999		Neutral
Felix	Aug 21, 1995	6	50	TS	37.2	988		Neutral
Iris	Sep 04, 1995	9	65	SS1	30.5	987		Neutral
Luis	Sep 10, 1995	12	80	SS1	45.4	966		Neutral
Bertha	Jul 14, 1996	2	50	TS	34.3	995	E	Neutral
Edouard	Sep 02, 1996	5	65	SS1	13.0	972		Neutral
Hortense	Sep 14, 1996	8	85	SS2	23.7	960		Neutral
Josephine	Oct 09, 1996	10	45	TS	31.1	980	E	Neutral
Bill	Jul 13, 1997	3	60	TS	29.8	990		El Nino
Danny	Jul 26, 1997	5	45	TS	30.6	998	E	El Nino
Bonnie	Aug 29, 1998	2	45	TS	29.4	999		La Nina
Danielle	Sep 03, 1998	4	70	SS1	26.0	960		La Nina
Earl	Sep 06, 1998	5	55	TS	26.2	964	E	La Nina
Floyd	Sep 18, 1999	6	40	TS	23.3	987	E	La Nina
Gert	Sep 23, 1999	7	60	TS	26.2	964		La Nina
Irene	Oct 18, 1999	9	80	SS1	51.8	968		La Nina
Florence	Sep 17, 2000	6	55	TS	31.6	995		La Nina
Gordon	Sep 20, 2000	7	30	TD	16.7	1005	E	La Nina
Helene	Sep 25, 2000	8	60	TS	48.1	986		La Nina
Leslie	Oct 08, 2000	12	40	TS	36.0	1004	E	La Nina
Michael	Oct 19, 2000	13	85	SS2	30.1	965		La Nina
Subtrop	Oct 29, 2000	15	55	TS	30.1	978	S	La Nina

All Maritimes Marine Areas Combined - Tropical Storm Frequency

All Maritimes Marine Areas
Maritimes Marine Areas
Fundy
Grand Manan
Lurcher
Brown's Bank
George's Bank
Southwestern Shore
Lahave Bank
West Scotian Slope
Eastern Shore
Sable
East Scotian Slope
Fourchu
Banquereau Bank
Laurentian Fan
Cabot Strait
Northumberland Strait
Gulf-Magdalen
Chaleur-Miscou
Anticosti


All Maritimes Marine Areas
Maritimes Marine Areas
Fundy
Grand Manan
Lurcher
Brown's Bank
George's Bank
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Laurentian Fan
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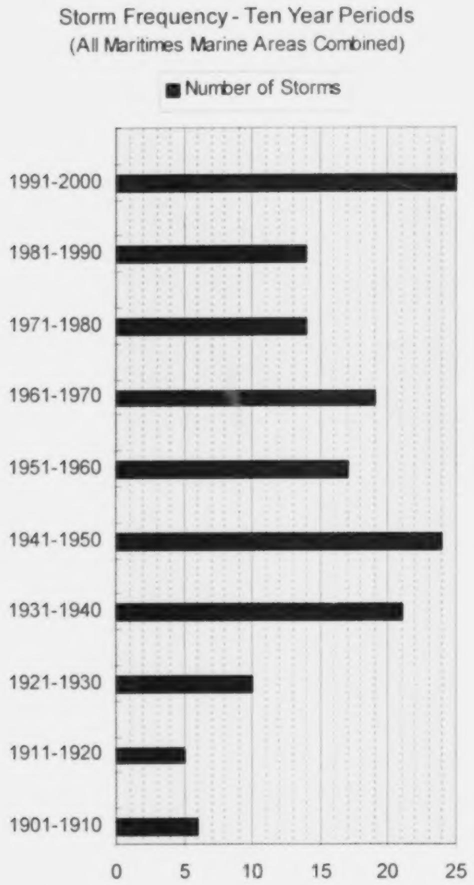
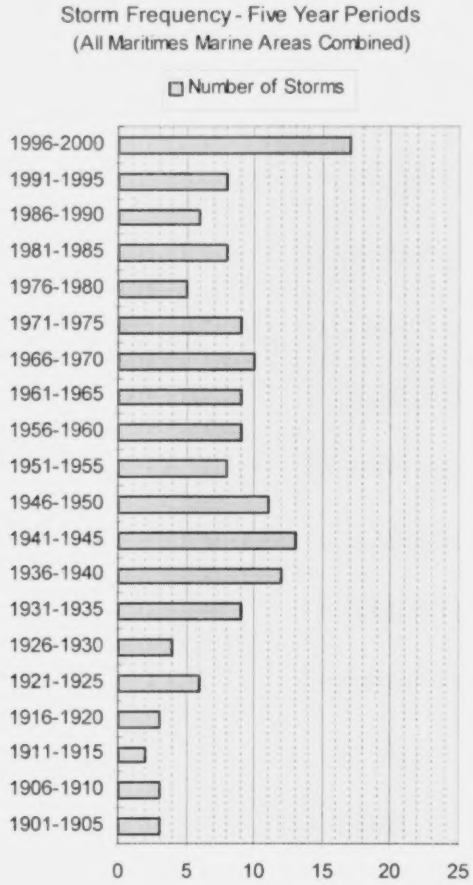
Northumberland Strait
Gulf-Magdalen
Chaleur-Miscou
Anticosti

Decadal and Five Year Frequency - All Maritimes Marine Areas Combined

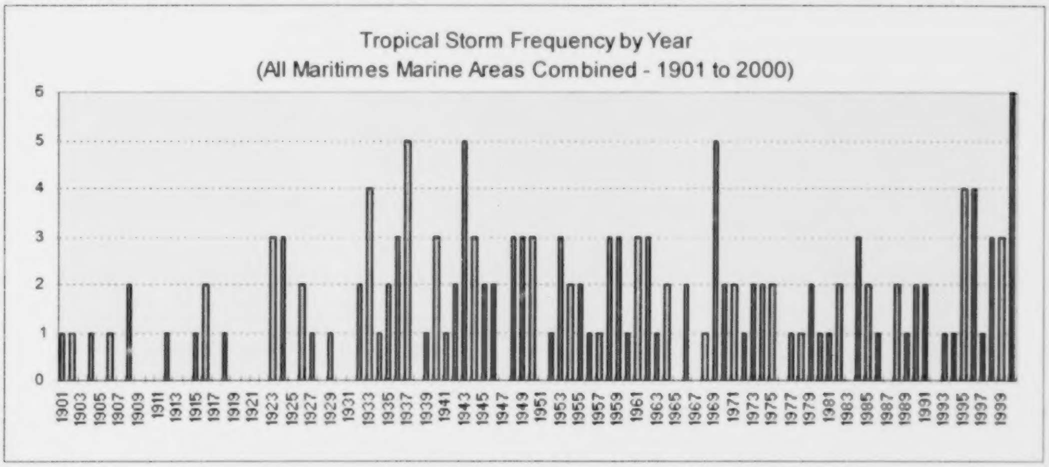

Storm Frequency - Ten Year Periods
(All Maritimes Marine Areas Combined)


Storm Frequency - Five Year Periods
(All Maritimes Marine Areas Combined)

10-Year Period	Number of Storms	5-Year Period	Number of Storms
1901-1910	6	1901-1905	3
		1906-1910	3
1911-1920	5	1911-1915	2
		1916-1920	3
1921-1930	10	1921-1925	6
		1926-1930	4
1931-1940	21	1931-1935	9
		1936-1940	12
1941-1950	24	1941-1945	13
		1946-1950	11
1951-1960	17	1951-1955	8
		1956-1960	9
1961-1970	19	1961-1965	9
		1966-1970	10

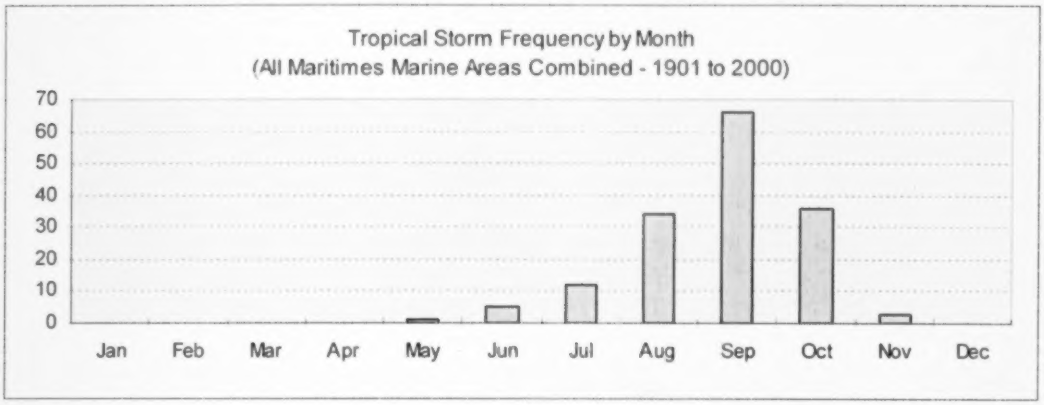
10-Year Period	Number of Storms	5-Year Period	Number of Storms
1971-1980	14	1971-1975	9
		1976-1980	5
1981-1990	14	1981-1985	8
		1986-1990	6
1991-2000	25	1991-1995	8
		1996-2000	17

Yearly Frequency - All Maritimes Marine Areas Combined



Year	#	Year	#	Year	#	Year	#	Year	#
1901	1	1921	0	1941	1	1961	3	1981	1
1902	1	1922	0	1942	2	1962	3	1982	2
1903	0	1923	3	1943	5	1963	1	1983	0
1904	1	1924	3	1944	3	1964	2	1984	3
1905	0	1925	0	1945	2	1965	0	1985	2
1906	1	1926	2	1946	2	1966	2	1986	1
1907	0	1927	1	1947	0	1967	0	1987	0
1908	2	1928	0	1948	3	1968	1	1988	2
1909	0	1929	1	1949	3	1969	5	1989	1
1910	0	1930	0	1950	3	1970	2	1990	2
1911	0	1931	0	1951	0	1971	2	1991	2
1912	1	1932	2	1952	1	1972	1	1992	0
1913	0	1933	4	1953	3	1973	2	1993	1
1914	0	1934	1	1954	2	1974	2	1994	1
1915	1	1935	2	1955	2	1975	2	1995	4
1916	2	1936	3	1956	1	1976	0	1996	4
1917	0	1937	5	1957	1	1977	1	1997	1
1918	1	1938	0	1958	3	1978	1	1998	3
1919	0	1939	1	1959	3	1979	2	1999	3
1920	0	1940	3	1960	1	1980	1	2000	6

Monthly Frequency - All Maritimes Marine Areas Combined

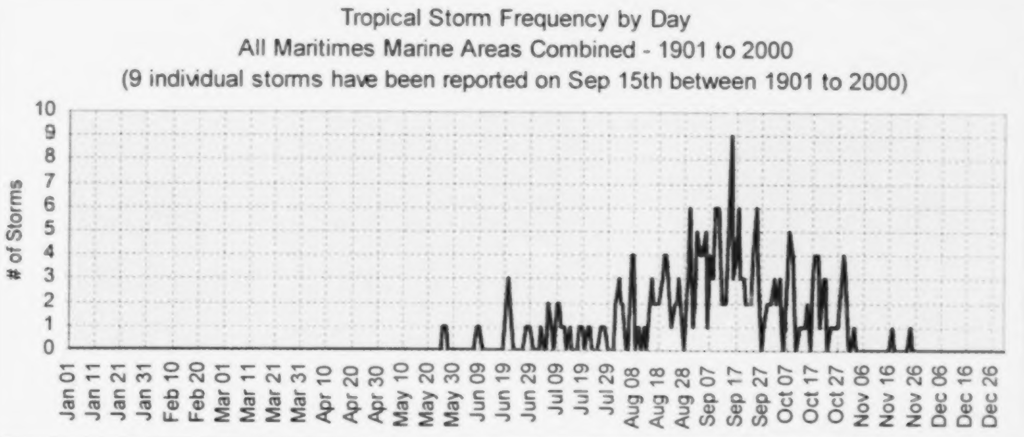


Note: Storms that span months were counted in both months

May	#	June	#	July	#	August	#	September	#	October	#	November	#
1940	1	1934	1	1916	1	1908	1	1901	1	1902	1	1912	1
		1945	1	1946	1	1924	1	1904	1	1929	1	1981	1
		1959	1	1959	1	1926	1	1906	1	1935	1	1991	1
		1982	1	1971	1	1927	1	1908	1	1939	1		
		1995	1	1973	1	1933	1	1915	1	1942	1		
				1975	1	1935	1	1916	1	1944	1		
				1985	1	1936	1	1918	1	1949	1		
				1995	1	1943	1	1923	1	1950	1		
				1996	1	1944	1	1926	1	1953	1		
				1997	1	1949	1	1933	1	1959	1		
				1966	2	1950	1	1941	1	1963	1		
						1953	1	1942	1	1968	1		
						1955	1	1944	1	1969	1		
						1956	1	1945	1	1970	1		
						1960	1	1946	1	1973	1		
						1962	1	1949	1	1975	1		
						1970	1	1950	1	1977	1		
						1971	1	1952	1	1979	1		
						1974	1	1953	1	1984	1		
						1986	1	1955	1	1990	1		
						1989	1	1957	1	1991	1		
						1990	1	1958	1	1996	1		
						1991	1	1961	1	1999	1		
						1994	1	1962	1	1923	2		
						1995	1	1972	1	1933	2		
						1998	1	1974	1	1943	2		
						1937	2	1978	1	1961	2		
						1958	2	1979	1	1962	2		
						1969	2	1980	1	2000	3		
						1988	2	1982	1				
								1985	1				
								1993	1				
								1995	1				
								1924	2				
								1932	2				
								1936	2				

May #		June #		July #		August #		September	#	October #		November #	
								1940	2				
								1943	2				
								1954	2				
								1964	2				
								1969	2				
								1984	2				
								1996	2				
								1998	2				
								1999	2				
								1937	3				
								1948	3				
								2000	3				
Total	1	Total	5	Total	12	Total	34	Total	66	Total	36	Total	3

Daily Frequency - All Maritimes Marine Areas Combined


Tropical Storm Frequency by Day
All Maritimes Marine Areas Combined - 1901 to 2000
(9 individual storms have been reported on Sep 15th between 1901 to 2000)

Note: Storms will generally span more than one day. The storm is counted in each day

Day	#	Day	#	Day	#	Day	#	Day	#	Day	#
Jan 01	0	Mar 01	0	May 01	0	Jul 01	0	Sep 01	2	Nov 01	0
Jan 02	0	Mar 02	0	May 02	0	Jul 02	0	Sep 02	5	Nov 02	1
Jan 03	0	Mar 03	0	May 03	0	Jul 03	1	Sep 03	4	Nov 03	0
Jan 04	0	Mar 04	0	May 04	0	Jul 04	0	Sep 04	4	Nov 04	0
Jan 05	0	Mar 05	0	May 05	0	Jul 05	0	Sep 05	5	Nov 05	0
Jan 06	0	Mar 06	0	May 06	0	Jul 06	2	Sep 06	1	Nov 06	0
Jan 07	0	Mar 07	0	May 07	0	Jul 07	1	Sep 07	4	Nov 07	0
Jan 08	0	Mar 08	0	May 08	0	Jul 08	0	Sep 08	3	Nov 08	0
Jan 09	0	Mar 09	0	May 09	0	Jul 09	2	Sep 09	6	Nov 09	0
Jan 10	0	Mar 10	0	May 10	0	Jul 10	2	Sep 10	6	Nov 10	0
Jan 11	0	Mar 11	0	May 11	0	Jul 11	1	Sep 11	4	Nov 11	0
Jan 12	0	Mar 12	0	May 12	0	Jul 12	1	Sep 12	2	Nov 12	0
Jan 13	0	Mar 13	0	May 13	0	Jul 13	0	Sep 13	2	Nov 13	0
Jan 14	0	Mar 14	0	May 14	0	Jul 14	1	Sep 14	4	Nov 14	0
Jan 15	0	Mar 15	0	May 15	0	Jul 15	0	Sep 15	9	Nov 15	0
Jan 16	0	Mar 16	0	May 16	0	Jul 16	0	Sep 16	3	Nov 16	0
Jan 17	0	Mar 17	0	May 17	0	Jul 17	0	Sep 17	4	Nov 17	1
Jan 18	0	Mar 18	0	May 18	0	Jul 18	1	Sep 18	6	Nov 18	0

Day	#	Day	#	Day	#	Day	#	Day	#	Day	#
Jan 19	0	Mar 19	0	May 19	0	Jul 19	1	Sep 19	3	Nov 19	0
Jan 20	0	Mar 20	0	May 20	0	Jul 20	0	Sep 20	3	Nov 20	0
Jan 21	0	Mar 21	0	May 21	0	Jul 21	1	Sep 21	2	Nov 21	0
Jan 22	0	Mar 22	0	May 22	0	Jul 22	1	Sep 22	2	Nov 22	0
Jan 23	0	Mar 23	0	May 23	0	Jul 23	0	Sep 23	2	Nov 23	0
Jan 24	0	Mar 24	0	May 24	0	Jul 24	0	Sep 24	4	Nov 24	1
Jan 25	0	Mar 25	0	May 25	0	Jul 25	0	Sep 25	6	Nov 25	0
Jan 26	0	Mar 26	0	May 26	1	Jul 26	1	Sep 26	3	Nov 26	0
Jan 27	0	Mar 27	0	May 27	1	Jul 27	1	Sep 27	0	Nov 27	0
Jan 28	0	Mar 28	0	May 28	0	Jul 28	1	Sep 28	1	Nov 28	0
Jan 29	0	Mar 29	0	May 29	0	Jul 29	0	Sep 29	2	Nov 29	0
Jan 30	0	Mar 30	0	May 30	0	Jul 30	0	Sep 30	2	Nov 30	0
Jan 31	0	Mar 31	0	May 31	0	Jul 31	0	Oct 01	2	Dec 01	0
Feb 01	0	Apr 01	0	Jun 01	0	Aug 01	2	Oct 02	3	Dec 02	0
Feb 02	0	Apr 02	0	Jun 02	0	Aug 02	3	Oct 03	2	Dec 03	0
Feb 03	0	Apr 03	0	Jun 03	0	Aug 03	2	Oct 04	3	Dec 04	0
Feb 04	0	Apr 04	0	Jun 04	0	Aug 04	2	Oct 05	1	Dec 05	0
Feb 05	0	Apr 05	0	Jun 05	0	Aug 05	0	Oct 06	0	Dec 06	0
Feb 06	0	Apr 06	0	Jun 06	0	Aug 06	0	Oct 07	3	Dec 07	0
Feb 07	0	Apr 07	0	Jun 07	0	Aug 07	4	Oct 08	5	Dec 08	0
Feb 08	0	Apr 08	0	Jun 08	1	Aug 08	4	Oct 09	4	Dec 09	0
Feb 09	0	Apr 09	0	Jun 09	1	Aug 09	0	Oct 10	2	Dec 10	0
Feb 10	0	Apr 10	0	Jun 10	0	Aug 10	1	Oct 11	0	Dec 11	0
Feb 11	0	Apr 11	0	Jun 11	0	Aug 11	0	Oct 12	1	Dec 12	0
Feb 12	0	Apr 12	0	Jun 12	0	Aug 12	1	Oct 13	1	Dec 13	0
Feb 13	0	Apr 13	0	Jun 13	0	Aug 13	0	Oct 14	1	Dec 14	0
Feb 14	0	Apr 14	0	Jun 14	0	Aug 14	1	Oct 15	2	Dec 15	0
Feb 15	0	Apr 15	0	Jun 15	0	Aug 15	3	Oct 16	0	Dec 16	0
Feb 16	0	Apr 16	0	Jun 16	0	Aug 16	2	Oct 17	3	Dec 17	0
Feb 17	0	Apr 17	0	Jun 17	0	Aug 17	2	Oct 18	4	Dec 18	0
Feb 18	0	Apr 18	0	Jun 18	0	Aug 18	2	Oct 19	4	Dec 19	0
Feb 19	0	Apr 19	0	Jun 19	1	Aug 19	3	Oct 20	1	Dec 20	0
Feb 20	0	Apr 20	0	Jun 20	3	Aug 20	4	Oct 21	3	Dec 21	0
Feb 21	0	Apr 21	0	Jun 21	2	Aug 21	4	Oct 22	3	Dec 22	0
Feb 22	0	Apr 22	0	Jun 22	0	Aug 22	2	Oct 23	0	Dec 23	0
Feb 23	0	Apr 23	0	Jun 23	0	Aug 23	1	Oct 24	1	Dec 24	0
Feb 24	0	Apr 24	0	Jun 24	0	Aug 24	2	Oct 25	1	Dec 25	0
Feb 25	0	Apr 25	0	Jun 25	0	Aug 25	2	Oct 26	1	Dec 26	0
Feb 26	0	Apr 26	0	Jun 26	0	Aug 26	3	Oct 27	1	Dec 27	0
Feb 27	0	Apr 27	0	Jun 27	1	Aug 27	1	Oct 28	3	Dec 28	0
Feb 28	0	Apr 28	0	Jun 28	1	Aug 28	0	Oct 29	4	Dec 29	0
Feb 29	0	Apr 29	0	Jun 29	1	Aug 29	3	Oct 30	3	Dec 30	0

Summary Statistics - All Maritimes Marine Areas Combined

100 Yr	**TD**	**TS**	**G**	**S**	**S1**	**S2**	**S3**	**S4**	**S5**	**H**	**<H**	**ALL**	**Sys-Spd**
#	9	72	34	38	53	15	5	1	0	74	81	155	28.6
Return	11.1	1.4	2.9	2.6	1.9	6.7	20	100	NA	1.4	1.2	0.6	
50 Yr	**TD**	**TS**	**G**	**S**	**S1**	**S2**	**S3**	**S4**	**S5**	**H**	**<H**	**ALL**	**Sys-Spd**
#	4	44	14	30	30	6	4	1	0	41	48	89	30.0
Return	12.5	1.1	3.6	1.7	1.7	8.3	12.5	50	NA	1.2	1	0.6	

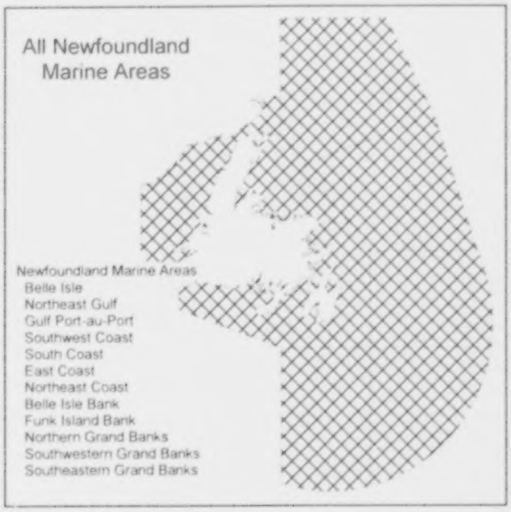
Table: storm name, number, date, maximum wind, etc. - All Maritimes Marine Areas Combined

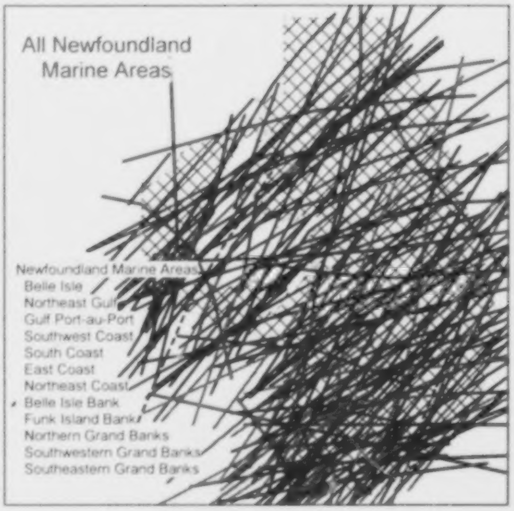
Name	Date	Storm #	MaxWind (kts)	SS Scale	AvgSysSpd (kts)	Pres (mb)	Comment	ENSO
Not Named	Sep 30, 1901	8	30	TD	24.4		E	Neutral
Not Named	Oct 13, 1902	4	40	TS	36.3		E	El Nino
Not Named	Sep 15, 1904	2	65	SS1	59.8		E	El Nino
Not Named	Sep 11, 1906	3	80	SS1	33.0			La Nina
Not Named	Aug 02, 1908	2	85	SS2	22.9			La Nina
Not Named	Sep 17, 1908	4	70	SS1	18.8			La Nina
Not Named	Nov 24, 1912	6	65	SS1	37.4			Neutral
Not Named	Sep 10, 1915	3	55	TS	23.1		E	Neutral
Not Named	Jul 22, 1916	2	45	TS	40.6			La Nina
Not Named	Sep 24, 1916	10	85	SS2	40.5			La Nina
Not Named	Sep 06, 1918	4	65	SS1	20.3			El Nino
Not Named	Sep 09, 1923	1	70	SS1	23.3			Neutral
Not Named	Oct 01, 1923	2	85	SS2	13.8		E	Neutral
Not Named	Oct 26, 1923	4	30	TD	22.2		E	Neutral
Not Named	Aug 26, 1924	2	90	SS2	35.6			La Nina
Not Named	Sep 04, 1924	3	75	SS1	25.4		E	La Nina
Not Named	Sep 18, 1924	4	40	TS	28.0		E	La Nina
Not Named	Aug 07, 1926	2	80	SS1	24.1			Neutral
Not Named	Sep 22, 1926	4	65	SS1	12.6		E	Neutral
Not Named	Aug 24, 1927	1	90	SS2	53.1		E	Neutral
Not Named	Oct 04, 1929	2	25	TD	62.0		E	El Nino
Not Named	Sep 09, 1932	4	90	SS2	13.5			Neutral
Not Named	Sep 17, 1932	5	35	TS	25.0		E	Neutral
Not Named	Aug 29, 1933	9	35	TS	24.6			Neutral
Not Named	Sep 18, 1933	13	65	SS1	21.2		E	Neutral
Not Named	Oct 07, 1933	18	100	SS3	18.8			Neutral
Not Named	Oct 28, 1933	20	60	TS	15.0			Neutral
Not Named	Jun 20, 1934	2	40	TS	19.5		E	Neutral
Not Named	Aug 24, 1935	1	80	SS1	18.7			Neutral
Not Named	Oct 01, 1935	4	75	SS1	32.9		E	Neutral
Not Named	Aug 10, 1936	6	40	TS	20.5		E	Neutral
Not Named	Sep 19, 1936	13	80	SS1	31.6			Neutral
Not Named	Sep 24, 1936	15	75	SS1	23.0			Neutral
Not Named	Aug 01, 1937	1	50	TS	15.5			Neutral
Not Named	Aug 07, 1937	2	45	TS	13.7			Neutral
Not Named	Sep 13, 1937	4	70	SS1	26.9			Neutral
Not Named	Sep 26, 1937	7	80	SS1	22.8		E	Neutral
Not Named	Sep 29, 1937	8	35	TS	25.2		E	Neutral
Not Named	Oct 17, 1939	4	95	SS2	40.1			Neutral
Not Named	May 26, 1940	1	35	TS	12.3			El Nino
Not Named	Sep 02, 1940	4	70	SS1	21.2			El Nino
Not Named	Sep 16, 1940	5	70	SS1	16.6			El Nino
Not Named	Sep 25, 1941	3	35	TS	19.4			Neutral
Not Named	Sep 22, 1942	5	35	TS	12.4		E	La Nina
Not Named	Oct 18, 1942	9	35	TS	37.9			La Nina
Not Named	Aug 26, 1943	3	65	SS1	40.4			Neutral
Not Named	Sep 09, 1943	4	75	SS1	28.6			Neutral
Not Named	Sep 15, 1943	5	40	TS	23.7		E	Neutral
Not Named	Oct 03, 1943	8	45	TS	22.4			Neutral
Not Named	Oct 17, 1943	9	40	TS	38.3		E	Neutral
Not Named	Aug 04, 1944	3	35	TS	10.6			La Nina
Not Named	Sep 15, 1944	7	35	TS	40.1		E	La Nina

Name	Date	Storm #	MaxWind (kts)	SS Scale	AvgSysSpd (kts)	Pres (mb)	Comment	ENSO
Not Named	Oct 21, 1944	11	45	TS	31.7		E	La Nina
Not Named	Jun 27, 1945	1	55	TS	12.5			Neutral
Not Named	Sep 19, 1945	9	25	TD	35.1		E	Neutral
Not Named	Jul 09, 1946	2	50	TS	21.4		E	Neutral
Not Named	Sep 15, 1946	4	70	SS1	26.1			Neutral
Not Named	Sep 01, 1948	3	60	TS	29.7		E	Neutral
Not Named	Sep 15, 1948	6	80	SS1	33.6			Neutral
Not Named	Sep 25, 1948	7	55	TS	33.5		E	Neutral
Not Named	Aug 30, 1949	2	30	TD	27.9		E	La Nina
Not Named	Sep 09, 1949	4	85	SS2	33.0			La Nina
Not Named	Oct 19, 1949	11	45	TS	12.3		E	La Nina
Able	Aug 21, 1950	1	65	SS1	26.8			Neutral
Dog	Sep 12, 1950	4	60	TS	14.7		E	Neutral
George	Oct 04, 1950	7	95	SS2	37.0			Neutral
Baker	Sep 07, 1952	3	75	SS1	43.1	969		Neutral
Barbara	Aug 15, 1953	2	75	SS1	34.0			Neutral
Carol	Sep 07, 1953	4	70	SS1	32.3			Neutral
Not Named	Oct 07, 1953	10	60	TS	20.8		E	Neutral
Dolly	Sep 02, 1954	4	70	SS1	36.4			La Nina
Edna	Sep 12, 1954	5	65	SS1	44.8		E	La Nina
Diane	Aug 20, 1955	3	35	TS	23.3			La Nina
Ione	Sep 21, 1955	9	75	SS1	35.5			La Nina
Betsy	Aug 18, 1956	3	65	SS1	23.6			La Nina
Frieda	Sep 26, 1957	7	55	TS	17.9		E	El Nino
Becky	Aug 17, 1958	2	25	TD	39.8		E	Neutral
Daisy	Aug 29, 1958	4	90	SS2	31.4	982		Neutral
Helene	Sep 29, 1958	8	85	SS2	40.9	959		Neutral
Not Named	Jun 19, 1959	3	70	SS1	18.1		E	Neutral
Cindy	Jul 11, 1959	4	50	TS	29.8			Neutral
Gracie	Oct 02, 1959	8	25	TD	30.3		E	Neutral
Cleo	Aug 20, 1960	4	80	SS1	21.1			Neutral
Not Named	Sep 15, 1961	6	35	TS	60.6			Neutral
Frances	Oct 08, 1961	7	100	SS3	14.5			Neutral
Gerda	Oct 20, 1961	8	60	TS	18.1			Neutral
Alma	Aug 30, 1962	1	45	TS	19.4			Neutral
Daisy	Oct 07, 1962	4	70	SS1	16.6	975		Neutral
Ella	Oct 22, 1962	5	65	SS1	42.9			Neutral
Ginny	Oct 29, 1963	8	95	SS2	29.1	958		El Nino
Dora	Sep 14, 1964	6	55	TS	28.5		E	La Nina
Gladys	Sep 24, 1964	9	65	SS1	36.2	982		La Nina
Becky	Jul 03, 1966	2	60	TS	17.6			Neutral
Celia	Jul 21, 1966	3	70	SS1	36.8	998		Neutral
Gladys	Oct 21, 1968	8	65	SS1	31.3			Neutral
Anna	Aug 03, 1969	1	55	TS	32.4	1002		El Nino
Blanche	Aug 12, 1969	2	75	SS1	41.2			El Nino
Gerda	Sep 09, 1969	7	110	SS3	44.6	979		El Nino
Not Named	Sep 25, 1969	10	65	SS1	22.1			El Nino
Not Named	Oct 30, 1969	17	50	TS	8.7		E	El Nino
Not Named	Aug 18, 1970	4	60	TS	36.9	992		La Nina
Not Named	Oct 17, 1970	9	90	SS2	49.6	974		La Nina
Arlene	Jul 06, 1971	1	55	TS	26.4	1000		La Nina
Beth	Aug 15, 1971	3	75	SS1	15.0	977		La Nina
Carrie	Sep 04, 1972	4	50	TS	9.8		E	El Nino
Alice	Jul 06, 1973	1	65	SS1	28.6	995		La Nina
Gilda	Oct 27, 1973	8	55	TS	30.8		S	La Nina

Name	Date	Storm #	MaxWind (kts)	SS Scale	AvgSysSpd (kts)	Pres (mb)	Comment	ENSO
Subtrop 3	Aug 14, 1974	3	50	TS	12.7	992	S	Neutral
Dolly	Sep 05, 1974	7	40	TS	31.7			Neutral
Blanche	Jul 28, 1975	2	75	SS1	29.0	980		La Nina
Gladys	Oct 03, 1975	7	110	SS3	52.2	950		La Nina
Evelyn	Oct 15, 1977	5	70	SS1	26.3	996		Neutral
Ella	Sep 04, 1978	6	120	SS4	39.1	956		Neutral
David	Sep 07, 1979	4	50	TS	35.5	988	E	Neutral
Subtrop 1	Oct 24, 1979	9	65	SS1	37.5	985	S	Neutral
Georges	Sep 08, 1980	7	70	SS1	39.6	993		Neutral
Subtrop 3	Nov 17, 1981	12	50	TS	17.8	985	S	Neutral
Subtrop 1	Jun 20, 1982	2	60	TS	39.9	992	S	El Nino
Debby	Sep 18, 1982	5	110	SS3	26.0	954		El Nino
Cesar	Sep 01, 1984	4	40	TS	18.9	998		Neutral
Diana	Sep 15, 1984	5	60	TS	39.7	992		Neutral
Josephine	Oct 18, 1984	11	50	TS	9.9	994		Neutral
Ana	Jul 19, 1985	1	60	TS	24.6	996		Neutral
Gloria	Sep 28, 1985	7	50	TS	25.3	987	E	Neutral
Charley	Aug 19, 1986	3	45	TS	13.8	1000		El Nino
Alberto	Aug 07, 1988	1	35	TS	24.6	1002		La Nina
Chris	Aug 30, 1988	3	25	TD	38.1	1008		La Nina
Dean	Aug 07, 1989	4	80	SS1	29.2	972		Neutral
Bertha	Aug 02, 1990	2	70	SS1	17.7	973		Neutral
Lili	Oct 14, 1990	12	50	TS	35.0	995		Neutral
Bob	Aug 20, 1991	2	45	TS	27.7	998		El Nino
Unnamed	Nov 02, 1991	8	65	SS1	19.6	981		El Nino
Floyd	Sep 09, 1993	6	65	SS1	38.6	990		Neutral
Chris	Aug 23, 1994	3	45	TS	35.7	1003		Neutral
Allison	Jun 08, 1995	1	50	TS	22.0	982	E	Neutral
Barry	Jul 09, 1995	2	50	TS	22.0	996		Neutral
Felix	Aug 21, 1995	6	50	TS	36.5	988		Neutral
Luis	Sep 10, 1995	12	80	SS1	39.3	966		Neutral
Bertha	Jul 14, 1996	2	50	TS	32.3	995	E	Neutral
Edouard	Sep 02, 1996	5	65	SS1	13.4	972		Neutral
Hortense	Sep 14, 1996	8	85	SS2	22.7	960		Neutral
Josephine	Oct 09, 1996	10	45	TS	30.8	980	E	Neutral
Danny	Jul 26, 1997	5	45	TS	30.6	998	E	El Nino
Bonnie	Aug 29, 1998	2	45	TS	28.8	999		La Nina
Danielle	Sep 03, 1998	4	70	SS1	23.7	960		La Nina
Earl	Sep 05, 1998	5	50	TS	39.4	1000	E	La Nina
Floyd	Sep 18, 1999	6	40	TS	20.9	987	E	La Nina
Gert	Sep 23, 1999	7	60	TS	25.3	964		La Nina
Irene	Oct 18, 1999	9	80	SS1	66.0	968		La Nina
Florence	Sep 17, 2000	6	55	TS	31.6	995		La Nina
Gordon	Sep 20, 2000	7	30	TD	16.7	1005	E	La Nina
Helene	Sep 25, 2000	8	60	TS	48.1	986		La Nina
Leslie	Oct 08, 2000	12	40	TS	38.5	1004	E	La Nina
Michael	Oct 19, 2000	13	85	SS2	45.2	965		La Nina
Subtrop	Oct 29, 2000	15	55	TS	30.1	978	S	La Nina

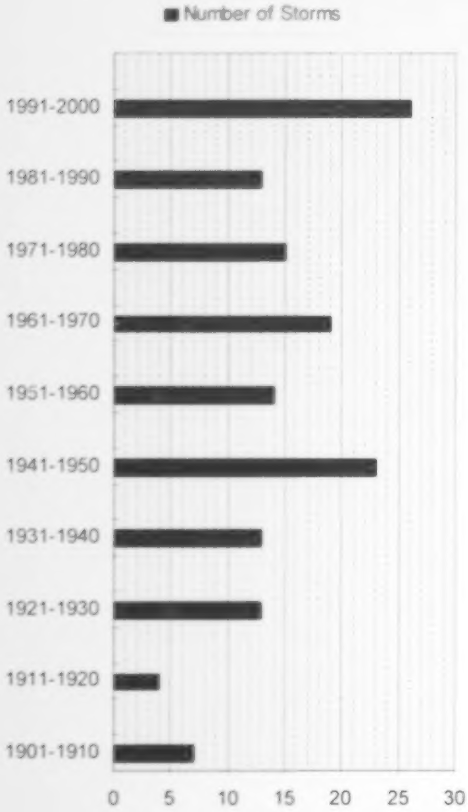
All Newfoundland Marine Areas Combined


All Newfoundland
Marine Areas
Newfoundland Marine Areas
Belle Isle
Northeast Gulf
Gulf Port-au-Port
Southwest Coast
South Coast
East Coast
Northeast Coast
Belle Isle Bank
Funk Island Bank
Northern Grand Banks
Southwestern Grand Banks
Southeastern Grand Banks

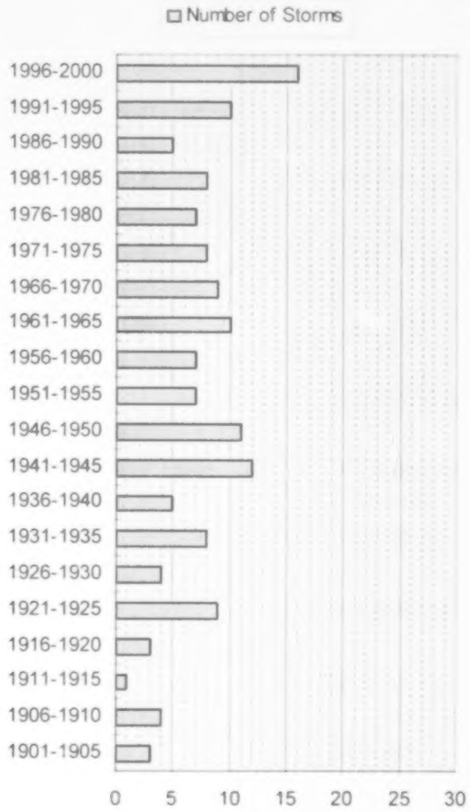

All Newfoundland
Marine Areas
Newfoundland Marine Areas
Belle Isle
Northeast Gulf
Gulf Port-au-Port
Southwest Coast
South Coast
East Coast
Northeast Coast
Belle Isle Bank
Funk Island Bank
Northern Grand Banks
Southwestern Grand Banks
Southeastern Grand Banks

Decadal and Five Year Frequency - All Newfoundland Marine Areas Combined

Storm Frequency - Ten Year Periods
(All Newfoundland Marine Areas Combined)



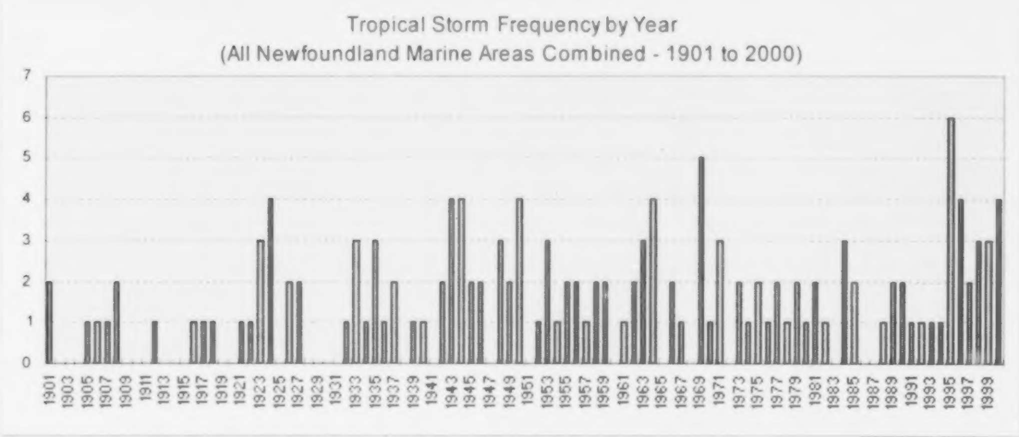
Storm Frequency - Five Year Periods
(All Newfoundland Marine Areas Combined)



10-Year Period	Number of Storms	5-Year Period	Number of Storms
1901-1910	7	1901-1905	3
		1906-1910	4
1911-1920	4	1911-1915	1
		1916-1920	3
1921-1930	13	1921-1925	9
		1926-1930	4
1931-1940	13	1931-1935	8
		1936-1940	5
1941-1950	23	1941-1945	12
		1946-1950	11
1951-1960	14	1951-1955	7
		1956-1960	7
1961-1970	19	1961-1965	10

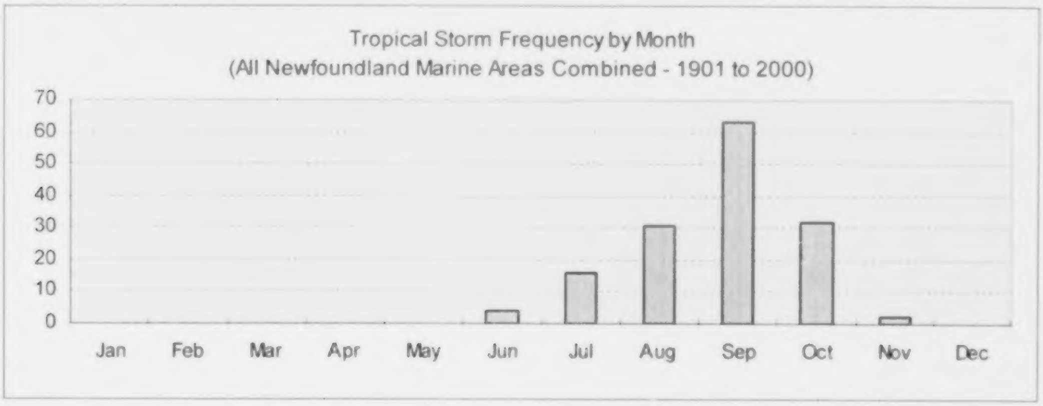
10-Year Period	Number of Storms	5-Year Period	Number of Storms
		1966-1970	9
1971-1980	15	1971-1975	8
		1976-1980	7
1981-1990	13	1981-1985	8
		1986-1990	5
1991-2000	26	1991-1995	10
		1996-2000	16

Yearly Frequency - All Newfoundland Marine Areas Combined



Year	#	Year	#	Year	#	Year	#	Year	#
1901	2	1921	1	1941	0	1961	1	1981	2
1902	0	1922	1	1942	2	1962	2	1982	1
1903	0	1923	3	1943	4	1963	3	1983	0
1904	0	1924	4	1944	4	1964	4	1984	3
1905	1	1925	0	1945	2	1965	0	1985	2
1906	1	1926	2	1946	2	1966	2	1986	0
1907	1	1927	2	1947	0	1967	1	1987	0
1908	2	1928	0	1948	3	1968	0	1988	1
1909	0	1929	0	1949	2	1969	5	1989	2
1910	0	1930	0	1950	4	1970	1	1990	2
1911	0	1931	0	1951	0	1971	3	1991	1
1912	1	1932	1	1952	1	1972	0	1992	1
1913	0	1933	3	1953	3	1973	2	1993	1
1914	0	1934	1	1954	1	1974	1	1994	1
1915	0	1935	3	1955	2	1975	2	1995	6
1916	1	1936	1	1956	2	1976	1	1996	4
1917	1	1937	2	1957	1	1977	2	1997	2
1918	1	1938	0	1958	2	1978	1	1998	3
1919	0	1939	1	1959	2	1979	2	1999	3
1920	0	1940	1	1960	0	1980	1	2000	4

Monthly Frequency - All Newfoundland Marine Areas Combined

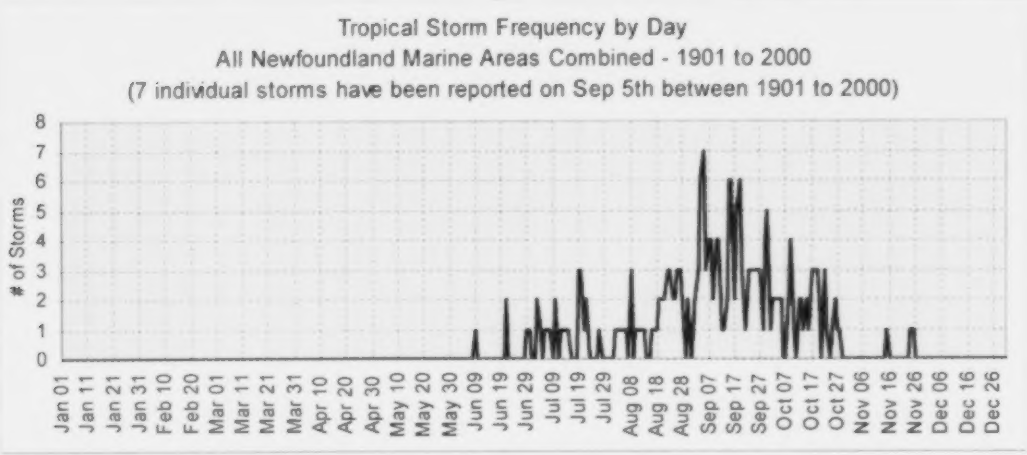


Note: Storms that span months were counted in both months

June	#	July	#	August	#	September	#	October	#	November	#
1934	1	1916	1	1908	1	1901	1	1905	1	1912	1
1945	1	1944	1	1924	1	1906	1	1907	1	1924	1
1959	1	1946	1	1926	1	1908	1	1933	1		
1995	1	1959	1	1927	1	1917	1	1935	1		
		1971	1	1933	1	1918	1	1939	1		
		1973	1	1935	1	1921	1	1942	1		
		1974	1	1943	1	1922	1	1943	1		
		1975	1	1949	1	1923	1	1944	1		
		1985	1	1950	1	1926	1	1950	1		
		1996	1	1953	1	1927	1	1961	1		
		1966	2	1955	1	1932	1	1963	1		
		1995	2	1956	1	1933	1	1969	1		
		1997	2	1958	1	1935	1	1970	1		
				1976	1	1936	1	1973	1		
				1981	1	1940	1	1975	1		
				1984	1	1942	1	1977	1		
				1988	1	1945	1	1979	1		
				1989	1	1946	1	1984	1		
				1990	1	1949	1	1990	1		
				1991	1	1952	1	1992	1		
				1994	1	1954	1	1996	1		
				1995	1	1955	1	1999	1		
				1998	1	1956	1	1901	2		
				1963	2	1957	1	1923	2		
				1971	2	1958	1	1953	2		
				1969	4	1967	1	1962	2		
						1977	1	2000	2		
						1978	1				
						1979	1				
						1980	1				
						1981	1				
						1982	1				
						1984	1				
						1985	1				
						1989	1				
						1993	1				

June	#	July	#	August	#	September	#	October	#	November	#
						1924	2				
						1937	2				
						1943	2				
						1944	2				
						1950	2				
						1995	2				
						1996	2				
						1998	2				
						1999	2				
						2000	2				
						1948	3				
						1964	4				
Total	**4**	**Total**	**16**	**Total**	**31**	**Total**	**63**	**Total**	**32**	**Total**	**2**

Daily Frequency - All Newfoundland Marine Areas Combined



Tropical Storm Frequency by Day
All Newfoundland Marine Areas Combined - 1901 to 2000
(7 individual storms have been reported on Sep 5th between 1901 to 2000)

Note: Storms will generally span more than one day. The storm is counted in each day

Day	#	Day	#	Day	#	Day	#	Day	#	Day	#
Jun 01	0	Jul 01	0	Aug 01	0	Sep 01	1	Oct 01	1	Nov 01	0
Jun 02	0	Jul 02	0	Aug 02	1	Sep 02	2	Oct 02	2	Nov 02	0
Jun 03	0	Jul 03	2	Aug 03	1	Sep 03	3	Oct 03	2	Nov 03	0
Jun 04	0	Jul 04	1	Aug 04	1	Sep 04	6	Oct 04	2	Nov 04	0
Jun 05	0	Jul 05	0	Aug 05	1	Sep 05	7	Oct 05	2	Nov 05	0
Jun 06	0	Jul 06	1	Aug 06	1	Sep 06	3	Oct 06	0	Nov 06	0
Jun 07	0	Jul 07	1	Aug 07	0	Sep 07	4	Oct 07	0	Nov 07	0
Jun 08	0	Jul 08	1	Aug 08	3	Sep 08	4	Oct 08	2	Nov 08	0
Jun 09	1	Jul 09	0	Aug 09	0	Sep 09	2	Oct 09	4	Nov 09	0
Jun 10	0	Jul 10	2	Aug 10	1	Sep 10	4	Oct 10	1	Nov 10	0
Jun 11	0	Jul 11	0	Aug 11	1	Sep 11	4	Oct 11	0	Nov 11	0
Jun 12	0	Jul 12	1	Aug 12	1	Sep 12	1	Oct 12	2	Nov 12	0
Jun 13	0	Jul 13	1	Aug 13	1	Sep 13	1	Oct 13	2	Nov 13	0
Jun 14	0	Jul 14	1	Aug 14	0	Sep 14	2	Oct 14	1	Nov 14	0
Jun 15	0	Jul 15	1	Aug 15	0	Sep 15	6	Oct 15	2	Nov 15	1
Jun 16	0	Jul 16	0	Aug 16	1	Sep 16	6	Oct 16	1	Nov 16	0

Day	#	Day	#	Day	#	Day	#	Day	#	Day	#
Jun 17	0	Jul 17	0	Aug 17	1	Sep 17	2	Oct 17	3	Nov 17	0
Jun 18	0	Jul 18	0	Aug 18	1	Sep 18	5	Oct 18	3	Nov 18	0
Jun 19	0	Jul 19	3	Aug 19	2	Sep 19	6	Oct 19	3	Nov 19	0
Jun 20	0	Jul 20	3	Aug 20	2	Sep 20	3	Oct 20	2	Nov 20	0
Jun 21	2	Jul 21	1	Aug 21	2	Sep 21	1	Oct 21	0	Nov 21	0
Jun 22	0	Jul 22	2	Aug 22	3	Sep 22	2	Oct 22	3	Nov 22	0
Jun 23	0	Jul 23	0	Aug 23	3	Sep 23	3	Oct 23	1	Nov 23	0
Jun 24	0	Jul 24	0	Aug 24	2	Sep 24	3	Oct 24	0	Nov 24	1
Jun 25	0	Jul 25	0	Aug 25	2	Sep 25	3	Oct 25	1	Nov 25	1
Jun 26	0	Jul 26	0	Aug 26	3	Sep 26	3	Oct 26	2	Nov 26	0
Jun 27	0	Jul 27	1	Aug 27	3	Sep 27	3	Oct 27	1	Nov 27	0
Jun 28	0	Jul 28	0	Aug 28	2	Sep 28	1	Oct 28	1	Nov 28	0
Jun 29	1	Jul 29	0	Aug 29	0	Sep 29	4	Oct 29	0	Nov 29	0
Jun 30	1	Jul 30	0	Aug 30	2	Sep 30	5	Oct 30	0	Nov 30	0
		Jul 31	0	Aug 31	0			Oct 31	0		

Summary Statistics - All Newfoundland Marine Areas Combined

100 Yr	**TD**	**TS**	**G**	**S**	**S1**	**S2**	**S3**	**S4**	**S5**	**H**	**<H**	**ALL**	**Sys-Spd**
#	5	88	42	46	44	8	1	1	0	54	93	147	29.7
Return	20	1.1	2.4	2.2	2.3	12.5	100	100	NA	1.9	1.1	0.7	
50 Yr	**TD**	**TS**	**G**	**S**	**S1**	**S2**	**S3**	**S4**	**S5**	**H**	**<H**	**ALL**	**Sys-Spd**
#	3	53	20	33	25	4	1	1	0	31	56	87	30.5
Return	16.7	0.9	2.5	1.5	2	12.5	50	50	NA	1.6	0.9	0.6	

Table: storm name, number, date, maximum wind, etc. - All Newfoundland Marine Areas Combined

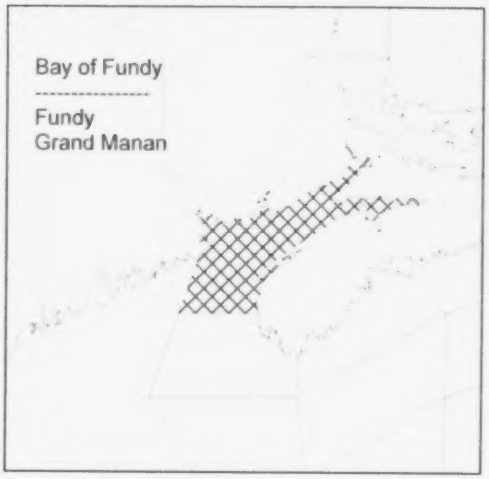
Name	Date	Storm #	MaxWind (kts)	SS Scale	AvgSysSpd (kts)	Pres (mb)	Comment	ENSO
Not Named	Oct 01, 1901	8	35	TS	29.6		E	Neutral
Not Named	Oct 13, 1901	9	35	TS	25.4		E	Neutral
Not Named	Oct 13, 1905	4	40	TS	17.7		E	El Nino
Not Named	Sep 11, 1906	3	80	SS1	39.2			La Nina
Not Named	Oct 19, 1907	4	45	TS	35.4			Neutral
Not Named	Aug 03, 1908	2	60	TS	27.3		E	La Nina
Not Named	Sep 18, 1908	4	60	TS	24.4		E	La Nina
Not Named	Nov 24, 1912	6	55	TS	45.3		E	Neutral
Not Named	Jul 22, 1916	2	35	TS	52.2		E	La Nina
Not Named	Sep 05, 1917	2	90	SS2	35.9			Neutral
Not Named	Sep 07, 1918	4	40	TS	20.2		E	El Nino
Not Named	Sep 16, 1921	3	90	SS2	52.1			Neutral
Not Named	Sep 23, 1922	2	95	SS2	18.9		E	La Nina
Not Named	Sep 10, 1923	1	55	TS	20.1		E	Neutral
Not Named	Oct 02, 1923	2	70	SS1	19.6		E	Neutral
Not Named	Oct 27, 1923	4	35	TS	19.2		E	Neutral
Not Named	Aug 27, 1924	2	80	SS1	29.7		E	La Nina
Not Named	Sep 05, 1924	3	65	SS1	24.7		E	La Nina
Not Named	Sep 19, 1924	4	40	TS	37.6		E	La Nina
Not Named	Nov 15, 1924	8	40	TS	31.9		E	La Nina
Not Named	Aug 08, 1926	2	65	SS1	25.9		E	Neutral
Not Named	Sep 22, 1926	4	60	TS	17.8		E	Neutral

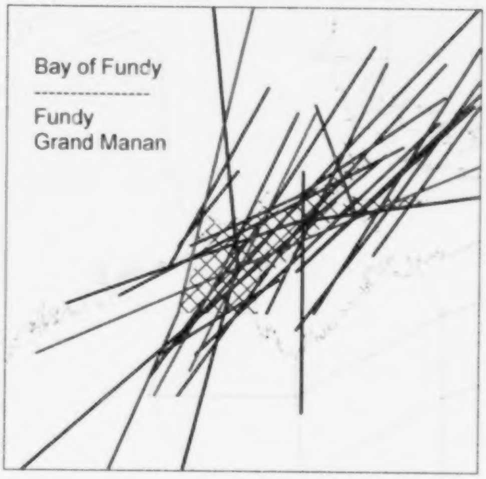
Name	Date	Storm #	MaxWind (kts)	SS Scale	AvgSysSpd (kts)	Pres (mb)	Comment	ENSO
Not Named	Aug 25, 1927	1	90	SS2	46.7		E	Neutral
Not Named	Sep 29, 1927	4	80	SS1	13.0		E	Neutral
Not Named	Sep 11, 1932	4	65	SS1	21.1		E	Neutral
Not Named	Aug 30, 1933	9	35	TS	22.4			Neutral
Not Named	Sep 18, 1933	13	55	TS	13.5		E	Neutral
Not Named	Oct 09, 1933	18	70	SS1	40.4		E	Neutral
Not Named	Jun 21, 1934	2	35	TS	16.5		E	Neutral
Not Named	Aug 25, 1935	1	70	SS1	10.4		E	Neutral
Not Named	Sep 07, 1935	2	80	SS1	40.0		E	Neutral
Not Named	Oct 02, 1935	4	60	TS	29.7		E	Neutral
Not Named	Sep 20, 1936	13	70	SS1	24.9			Neutral
Not Named	Sep 26, 1937	7	70	SS1	26.5		E	Neutral
Not Named	Sep 30, 1937	8	35	TS	24.6		E	Neutral
Not Named	Oct 18, 1939	4	80	SS1	35.2			Neutral
Not Named	Sep 18, 1940	5	40	TS	18.7			El Nino
Not Named	Sep 24, 1942	5	35	TS	17.1		E	La Nina
Not Named	Oct 04, 1942	7	40	TS	27.3		E	La Nina
Not Named	Aug 26, 1943	3	65	SS1	30.4			Neutral
Not Named	Sep 09, 1943	4	55	TS	35.1			Neutral
Not Named	Sep 16, 1943	5	35	TS	32.8		E	Neutral
Not Named	Oct 04, 1943	8	35	TS	15.6		E	Neutral
Not Named	Jul 19, 1944	1	50	TS	37.2		E	La Nina
Not Named	Sep 15, 1944	7	35	TS	41.7	982	E	La Nina
Not Named	Sep 26, 1944	9	80	SS1	21.5			La Nina
Not Named	Oct 22, 1944	11	40	TS	35.8		E	La Nina
Not Named	Jun 29, 1945	1	40	TS	22.9		E	Neutral
Not Named	Sep 20, 1945	9	25	TD	34.3		E	Neutral
Not Named	Jul 10, 1946	2	45	TS	18.9		E	Neutral
Not Named	Sep 15, 1946	4	55	TS	29.7		E	Neutral
Not Named	Sep 02, 1948	3	50	TS	25.9		E	Neutral
Not Named	Sep 15, 1948	6	75	SS1	39.6			Neutral
Not Named	Sep 25, 1948	7	55	TS	36.9		E	Neutral
Not Named	Aug 26, 1949	1	65	SS1	25.0		E	La Nina
Not Named	Sep 10, 1949	4	65	SS1	40.0		E	La Nina
Able	Aug 22, 1950	1	30	TD	26.7			Neutral
Charlie	Sep 05, 1950	3	45	TS	25.7		E	Neutral
Dog	Sep 14, 1950	4	50	TS	23.7		E	Neutral
George	Oct 05, 1950	7	65	SS1	43.9		E	Neutral
Baker	Sep 08, 1952	3	70	SS1	34.4			Neutral
Barbara	Aug 16, 1953	2	55	TS	41.7		E	Neutral
Not Named	Oct 08, 1953	10	60	TS	27.5		E	Neutral
Hazel	Oct 12, 1953	12	40	TS	26.5		E	Neutral
Dolly	Sep 03, 1954	4	65	SS1	33.2		E	La Nina
Diane	Aug 21, 1955	3	35	TS	28.2		E	La Nina
Ione	Sep 21, 1955	9	50	TS	20.4		E	La Nina
Betsy	Aug 18, 1956	3	50	TS	24.6		E	La Nina
Carla	Sep 11, 1956	4	25	TD	31.1			La Nina
Frieda	Sep 26, 1957	7	50	TS	23.3		E	El Nino
Cleo	Aug 19, 1958	3	80	SS1	33.1	979		Neutral
Helene	Sep 29, 1958	8	65	SS1	35.3	966		Neutral
Not Named	Jun 21, 1959	3	45	TS	27.0		E	Neutral
Cindy	Jul 12, 1959	4	35	TS	28.8		E	Neutral
Gerda	Oct 22, 1961	8	30	TD	27.6		E	Neutral
Daisy	Oct 09, 1962	4	50	TS	20.2		E	Neutral
Ella	Oct 22, 1962	5	60	TS	39.6		E	Neutral

Name	Date	Storm #	MaxWind (kts)	SS Scale	AvgSysSpd (kts)	Pres (mb)	Comment	ENSO
Arlene	Aug 10, 1963	1	80	SS1	28.0			El Nino
Beulah	Aug 27, 1963	2	70	SS1	44.5			El Nino
Flora	Oct 12, 1963	7	75	SS1	23.6			El Nino
Cleo	Sep 04, 1964	5	75	SS1	26.2			La Nina
Dora	Sep 15, 1964	6	55	TS	28.0		E	La Nina
Ethel	Sep 14, 1964	7	75	SS1	24.8			La Nina
Gladys	Sep 24, 1964	9	60	TS	46.8	990	E	La Nina
Becky	Jul 03, 1966	2	60	TS	19.2			Neutral
Celia	Jul 21, 1966	3	65	SS1	30.3		E	Neutral
Arlene	Sep 03, 1967	1	75	SS1	21.3			La Nina
Anna	Aug 04, 1969	1	45	TS	39.1		E	El Nino
Blanche	Aug 12, 1969	2	65	SS1	42.0	998		El Nino
Camille	Aug 22, 1969	3	55	TS	38.2			El Nino
Debbie	Aug 23, 1969	4	90	SS2	24.2			El Nino
Kara	Oct 18, 1969	14	90	SS2	45.0			El Nino
Not Named	Oct 17, 1970	9	70	SS1	55.2	980		La Nina
Arlene	Jul 07, 1971	1	45	TS	27.5			La Nina
Not Named	Aug 06, 1971	2	75	SS1	37.6	974		La Nina
Beth	Aug 17, 1971	3	60	TS	16.3	998	E	La Nina
Alice	Jul 06, 1973	1	60	TS	36.9	991		La Nina
Gilda	Oct 28, 1973	8	55	TS	38.0		E	La Nina
Subtrop 2	Jul 19, 1974	2	45	TS	17.2		S	Neutral
Amy	Jul 03, 1975	1	50	TS	32.5	986		La Nina
Gladys	Oct 03, 1975	7	85	SS2	52.7	960		La Nina
Candice	Aug 23, 1976	4	80	SS1	18.1			El Nino
Dorothy	Sep 29, 1977	4	65	SS1	28.3	988		Neutral
Evelyn	Oct 15, 1977	5	70	SS1	18.0	999		Neutral
Ella	Sep 04, 1978	6	115	SS4	40.0	956		Neutral
David	Sep 08, 1979	4	60	TS	38.3	985	E	Neutral
Subtrop 1	Oct 25, 1979	9	60	TS	42.8	980	S	Neutral
Georges	Sep 08, 1980	7	70	SS1	38.5	993		Neutral
Cindy	Aug 05, 1981	3	45	TS	21.5	1005		Neutral
Emily	Sep 07, 1981	5	65	SS1	7.2	978		Neutral
Debby	Sep 18, 1982	5	100	SS3	26.7	960		El Nino
Subtrop 1	Aug 20, 1984	1	45	TS	21.9	1000	S	Neutral
Cesar	Sep 02, 1984	4	50	TS	13.3	994		Neutral
Josephine	Oct 17, 1984	11	60	TS	7.0	990		Neutral
Ana	Jul 19, 1985	1	55	TS	29.1	996	E	Neutral
Gloria	Sep 28, 1985	7	50	TS	21.7	987	E	Neutral
Alberto	Aug 08, 1988	1	35	TS	30.5	1006		La Nina
Dean	Aug 08, 1989	4	65	SS1	34.5	978		Neutral
Gabrielle	Sep 13, 1989	7	30	TD	17.2	1009		Neutral
Bertha	Aug 02, 1990	2	60	TS	24.0	978	E	Neutral
Lili	Oct 15, 1990	12	40	TS	37.1	995	E	Neutral
Bob	Aug 20, 1991	2	40	TS	25.1	1003	E	El Nino
Frances	Oct 26, 1992	7	60	TS	18.7	985		Neutral
Floyd	Sep 09, 1993	6	65	SS1	41.1	990		Neutral
Chris	Aug 23, 1994	3	45	TS	35.7	1003		Neutral
Allison	Jun 09, 1995	1	40	TS	30.3	995	E	Neutral
Barry	Jul 10, 1995	2	45	TS	22.8	990		Neutral
Chantal	Jul 20, 1995	3	50	TS	31.6	999		Neutral
Felix	Aug 22, 1995	6	50	TS	40.5	986		Neutral
Iris	Sep 04, 1995	9	65	SS1	30.5	987		Neutral
Luis	Sep 11, 1995	12	80	SS1	48.9	965		Neutral
Bertha	Jul 14, 1996	2	50	TS	35.9	995	E	Neutral

Name	Date	Storm #	MaxWind (kts)	SS Scale	AvgSysSpd (kts)	Pres (mb)	Comment	ENSO
Edouard	Sep 04, 1996	5	50	TS	12.7	994	E	Neutral
Hortense	Sep 15, 1996	8	60	TS	21.8	982		Neutral
Josephine	Oct 10, 1996	10	45	TS	32.6	985	E	Neutral
Bill	Jul 13, 1997	3	60	TS	29.8	990		El Nino
Danny	Jul 27, 1997	5	40	TS	59.4	1004	E	El Nino
Bonnie	Aug 30, 1998	2	45	TS	28.9	1000		La Nina
Danielle	Sep 03, 1998	4	70	SS1	26.0	960		La Nina
Earl	Sep 06, 1998	5	55	TS	16.1	964	E	La Nina
Floyd	Sep 19, 1999	6	40	TS	28.2	992	E	La Nina
Gert	Sep 23, 1999	7	60	TS	26.2	964		La Nina
Irene	Oct 19, 1999	9	80	SS1	50.7	968		La Nina
Florence	Sep 17, 2000	6	55	TS	31.6	995		La Nina
Helene	Sep 25, 2000	8	55	TS	51.8	988		La Nina
Leslie	Oct 08, 2000	12	40	TS	33.5	1003	E	La Nina
Michael	Oct 19, 2000	13	85	SS2	25.7	965		La Nina

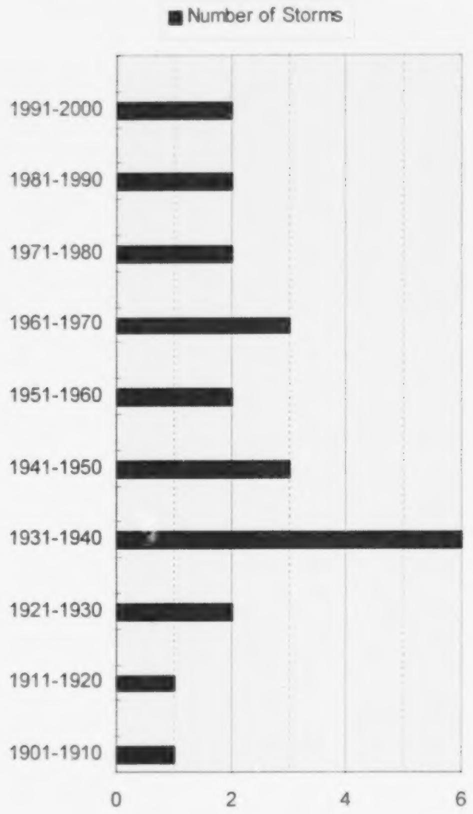
Bay of Fundy (Fundy and Grand Manan Combined Areas)


Bay of Fundy
Fundy
Grand Manan

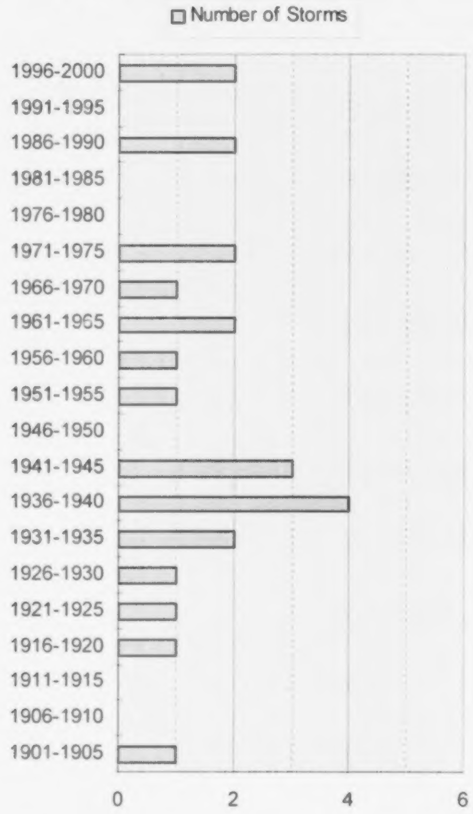

Bay of Fundy
Fundy
Grand Manan

Decadal and Five Year Frequency - Bay of Fundy

Storm Frequency - Ten Year Periods
(Fundy and Grand Manan Combined)



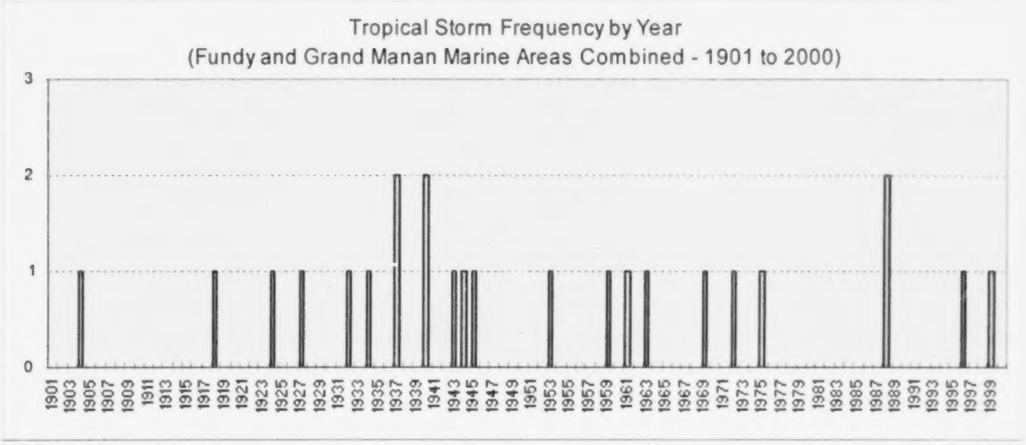
Storm Frequency - Five Year Periods
(Fundy and Grand Manan Combined)



10-Year Period	Number of Storms	5-Year Period	Number of Storms
1901-1910	1	1901-1905	1
		1906-1910	0
1911-1920	1	1911-1915	0
		1916-1920	1
1921-1930	2	1921-1925	1
		1926-1930	1
1931-1940	6	1931-1935	2
		1936-1940	4
1941-1950	3	1941-1945	3
		1946-1950	0
1951-1960	2	1951-1955	1
		1956-1960	1
1961-1970	3	1961-1965	2
		1966-1970	1

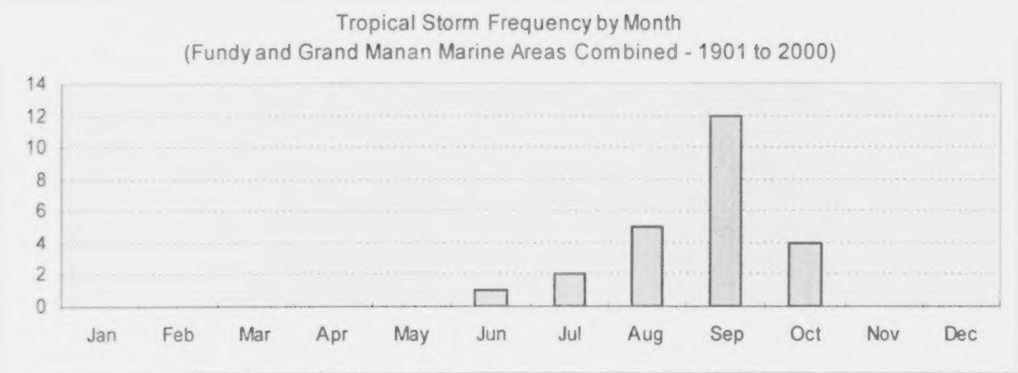
10-Year Period	Number of Storms	5-Year Period	Number of Storms
1971-1980	2	1971-1975	2
		1976-1980	0
1981-1990	2	1981-1985	0
		1986-1990	2
1991-2000	2	1991-1995	0
		1996-2000	2

Yearly Frequency - Bay of Fundy



Year	#	Year	#	Year	#	Year	#	Year	#
1901	0	1921	0	1941	0	1961	1	1981	0
1902	0	1922	0	1942	0	1962	0	1982	0
1903	0	1923	0	1943	1	1963	1	1983	0
1904	1	1924	1	1944	1	1964	0	1984	0
1905	0	1925	0	1945	1	1965	0	1985	0
1906	0	1926	0	1946	0	1966	0	1986	0
1907	0	1927	1	1947	0	1967	0	1987	0
1908	0	1928	0	1948	0	1968	0	1988	2
1909	0	1929	0	1949	0	1969	1	1989	0
1910	0	1930	0	1950	0	1970	0	1990	0
1911	0	1931	0	1951	0	1971	0	1991	0
1912	0	1932	1	1952	0	1972	1	1992	0
1913	0	1933	0	1953	1	1973	0	1993	0
1914	0	1934	1	1954	0	1974	0	1994	0
1915	0	1935	0	1955	0	1975	1	1995	0
1916	0	1936	0	1956	0	1976	0	1996	1
1917	0	1937	2	1957	0	1977	0	1997	0
1918	1	1938	0	1958	0	1978	0	1998	0
1919	0	1939	0	1959	1	1979	0	1999	1
1920	0	1940	2	1960	0	1980	0	2000	0

Monthly Frequency - Bay of Fundy

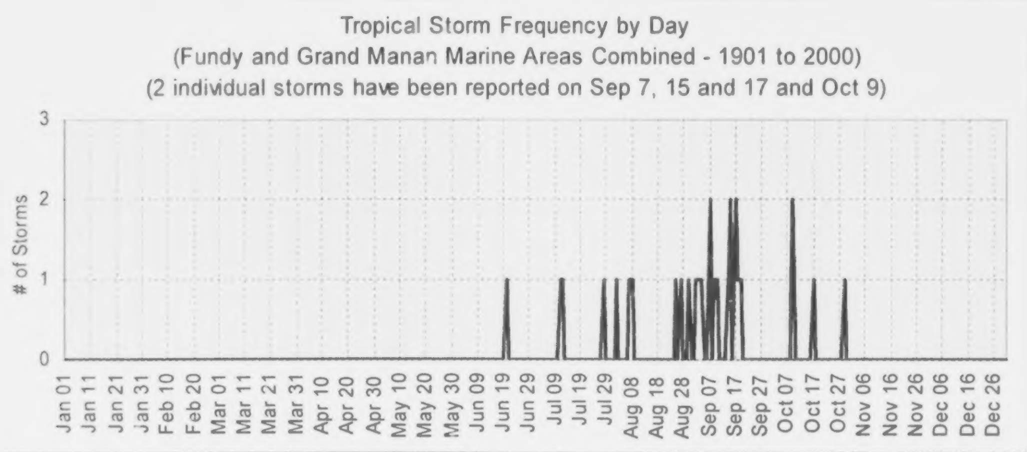


Tropical Storm Frequency by Month
(Fundy and Grand Manan Marine Areas Combined - 1901 to 2000)

Note: Storms that span months were counted in both months

June	#	July	#	August	#	September	#	October	#
1934	1	1959	1	1924	1	1904	1	1943	1
		1975	1	1927	1	1918	1	1961	1
				1937	1	1932	1	1963	1
				1988	2	1937	1	1996	1
						1944	1		
						1945	1		
						1953	1		
						1969	1		
						1972	1		
						1999	1		
						1940	2		
Total	**1**	**Total**	**2**	**Total**	**5**	**Total**	**12**	**Total**	**4**

Daily Frequency - Bay of Fundy



Tropical Storm Frequency by Day
(Fundy and Grand Manan Marine Areas Combined - 1901 to 2000)
(2 individual storms have been reported on Sep 7, 15 and 17 and Oct 9)

Note: Storms will generally span more than one day. The storm is counted in each day

Day	#	Day	#	Day	#	Day	#	Day	#
Jun 01	0	Jul 01	0	Aug 01	0	Sep 01	0	Oct 01	0
Jun 02	0	Jul 02	0	Aug 02	1	Sep 02	1	Oct 02	0
Jun 03	0	Jul 03	0	Aug 03	0	Sep 03	1	Oct 03	0
Jun 04	0	Jul 04	0	Aug 04	0	Sep 04	1	Oct 04	0
Jun 05	0	Jul 05	0	Aug 05	0	Sep 05	0	Oct 05	0
Jun 06	0	Jul 06	0	Aug 06	0	Sep 06	0	Oct 06	0
Jun 07	0	Jul 07	0	Aug 07	1	Sep 07	2	Oct 07	0
Jun 08	0	Jul 08	0	Aug 08	1	Sep 08	0	Oct 08	0
Jun 09	0	Jul 09	0	Aug 09	0	Sep 09	1	Oct 09	2
Jun 10	0	Jul 10	0	Aug 10	0	Sep 10	1	Oct 10	0
Jun 11	0	Jul 11	1	Aug 11	0	Sep 11	0	Oct 11	0
Jun 12	0	Jul 12	1	Aug 12	0	Sep 12	0	Oct 12	0
Jun 13	0	Jul 13	0	Aug 13	0	Sep 13	0	Oct 13	0
Jun 14	0	Jul 14	0	Aug 14	0	Sep 14	1	Oct 14	0
Jun 15	0	Jul 15	0	Aug 15	0	Sep 15	2	Oct 15	0
Jun 16	0	Jul 16	0	Aug 16	0	Sep 16	0	Oct 16	0
Jun 17	0	Jul 17	0	Aug 17	0	Sep 17	2	Oct 17	1
Jun 18	0	Jul 18	0	Aug 18	0	Sep 18	1	Oct 18	0
Jun 19	0	Jul 19	0	Aug 19	0	Sep 19	1	Oct 19	0
Jun 20	1	Jul 20	0	Aug 20	0	Sep 20	0	Oct 20	0
Jun 21	0	Jul 21	0	Aug 21	0	Sep 21	0	Oct 21	0
Jun 22	0	Jul 22	0	Aug 22	0	Sep 22	0	Oct 22	0
Jun 23	0	Jul 23	0	Aug 23	0	Sep 23	0	Oct 23	0
Jun 24	0	Jul 24	0	Aug 24	0	Sep 24	0	Oct 24	0
Jun 25	0	Jul 25	0	Aug 25	1	Sep 25	0	Oct 25	0
Jun 26	0	Jul 26	0	Aug 26	0	Sep 26	0	Oct 26	0
Jun 27	0	Jul 27	0	Aug 27	1	Sep 27	0	Oct 27	0
Jun 28	0	Jul 28	1	Aug 28	0	Sep 28	0	Oct 28	0
Jun 29	0	Jul 29	0	Aug 29	0	Sep 29	0	Oct 29	1
Jun 30	0	Jul 30	0	Aug 30	1	Sep 30	0	Oct 30	0
		Jul 31	0	Aug 31	0			Oct 31	0

Summary Statistics - Bay of Fundy

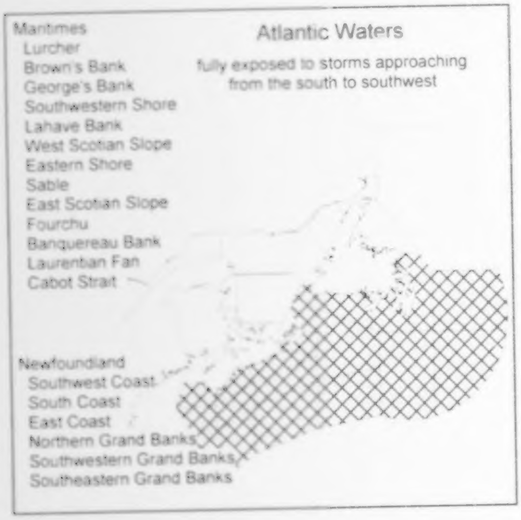
100 Yr	**TD**	**TS**	**G**	**S**	**S1**	**S2**	**S3**	**S4**	**S5**	**H**	**<H**	**ALL**	**Sys-Spd**
#	2	15	9	6	3	3	1	0	0	7	17	24	30.6
Return	50	6.7	11.1	16.7	33.3	33.3	100	NA	NA	14.3	5.9	4.2	
50 Yr	**TD**	**TS**	**G**	**S**	**S1**	**S2**	**S3**	**S4**	**S5**	**H**	**<H**	**ALL**	**Sys-Spd**
#	1	7	4	3	1	1	1	0	0	3	8	11	28.9
Return	50	7.1	12.5	16.7	50	50	50	NA	NA	16.7	6.3	4.5	

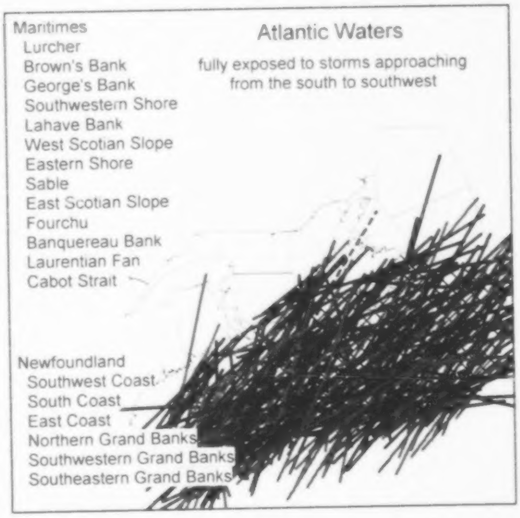
Table: storm name, number, date, maximum wind, etc - Bay of Fundy

Name	Date	Storm #	MaxWind (kts)	SS Scale	AvgSysSpd (kts)	Pres (mb)	Comment	ENSO
Not Named	Sep 15, 1904	2	65	SS1	59.8		E	El Nino
Not Named	Sep 07, 1918	4	50	TS	18.5		E	El Nino
Not Named	Aug 27, 1924	2	85	SS2	40.4		E	La Nina
Not Named	Aug 25, 1927	1	90	SS2	56.5		E	Neutral
Not Named	Sep 17, 1932	5	35	TS	25.0		E	Neutral
Not Named	Jun 20, 1934	2	40	TS	24.1		E	Neutral

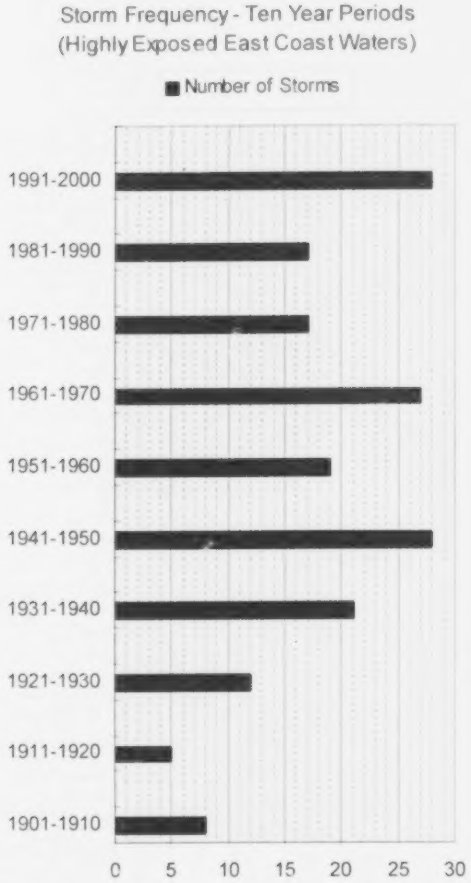
Name	Date	Storm #	MaxWind (kts)	SS Scale	AvgSysSpd (kts)	Pres (mb)	Comment	ENSO
Not Named	Aug 02, 1937	1	35	TS	13.9			Neutral
Not Named	Sep 14, 1937	4	55	TS	29.0			Neutral
Not Named	Sep 02, 1940	4	65	SS1	19.0			El Nino
Not Named	Sep 17, 1940	5	55	TS	22.0			El Nino
Not Named	Oct 17, 1943	9	40	TS	38.3		E	Neutral
Not Named	Sep 15, 1944	7	35	TS	38.4		E	La Nina
Not Named	Sep 19, 1945	9	25	TD	32.2		E	Neutral
Carol	Sep 07, 1953	4	65	SS1	34.4			Neutral
Cindy	Jul 11, 1959	4	50	TS	30.0		E	Neutral
Frances	Oct 09, 1961	7	40	TS	17.0		E	Neutral
Ginny	Oct 29, 1963	8	90	SS2	33.1		E	El Nino
Gerda	Sep 09, 1969	7	110	SS3	44.6	979		El Nino
Carrie	Sep 04, 1972	4	50	TS	11.4		E	El Nino
Blanche	Jul 28, 1975	2	60	TS	37.5	988	E	La Nina
Alberto	Aug 07, 1988	1	35	TS	25.6	1002		La Nina
Chris	Aug 30, 1988	3	25	TD	38.1	1008		La Nina
Josephine	Oct 09, 1996	10	45	TS	29.0	984	E	Neutral
Floyd	Sep 18, 1999	6	40	TS	17.6	987	E	La Nina

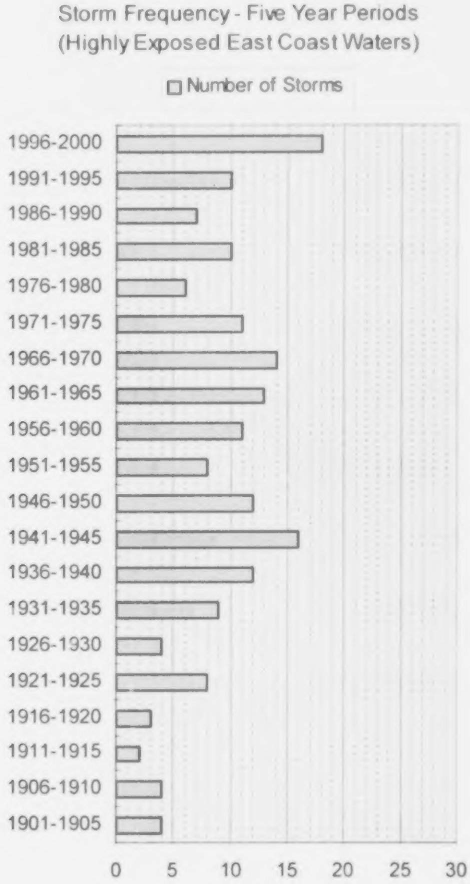
Highly Exposed Atlantic Marine Areas East of Nova Scotia and South of Newfoundland


Atlantic Waters
fully exposed to storms approaching from the south to southwest
Maritimes
Lurcher
Brown's Bank
George's Bank
Southwestern Shore
Lahave Bank
West Scotian Slope
Eastern Shore
Sable
East Scotian Slope
Fourchu
Banquereau Bank
Laurentian Fan
Cabot Strait
Newfoundland
Southwest Coast
South Coast
East Coast
Northern Grand Banks
Southwestern Grand Banks
Southeastern Grand Banks


Atlantic Waters
fully exposed to storms approaching from the south to southwest
Maritimes
Lurcher
Brown's Bank
George's Bank
Southwestern Shore
Lahave Bank
West Scotian Slope
Eastern Shore
Sable
East Scotian Slope
Fourchu
Banquereau Bank
Laurentian Fan
Cabot Strait
Newfoundland
Southwest Coast
South Coast
East Coast
Northern Grand Banks
Southwestern Grand Banks
Southeastern Grand Banks

Decadal and Five Year Frequency - Highly Exposed Atlantic Marine Areas

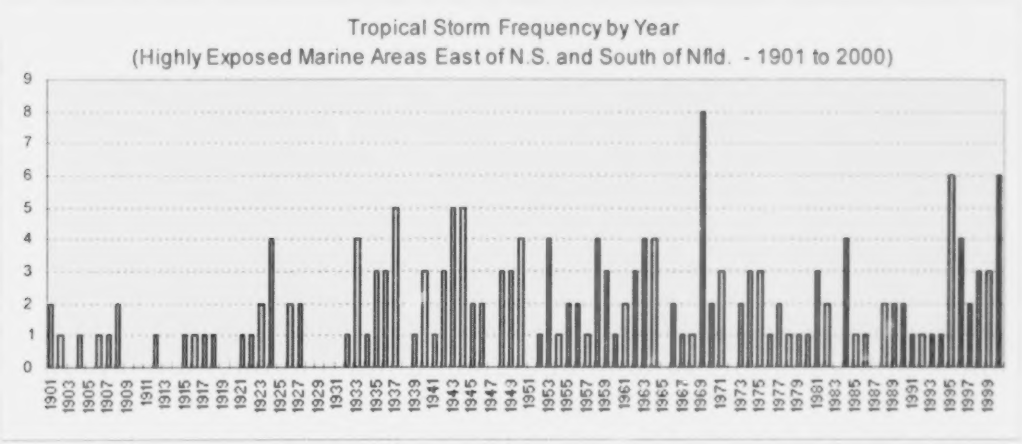

Storm Frequency - Ten Year Periods
(Highly Exposed East Coast Waters)


Storm Frequency - Five Year Periods
(Highly Exposed East Coast Waters)

10-Year Period	Number of Storms	5-Year Period	Number of Storms
1901-1910	8	1901-1905	4
		1906-1910	4
1911-1920	5	1911-1915	2
		1916-1920	3
1921-1930	12	1921-1925	8
		1926-1930	4
1931-1940	21	1931-1935	9
		1936-1940	12
1941-1950	28	1941-1945	16
		1946-1950	12
1951-1960	19	1951-1955	8
		1956-1960	11
1961-1970	27	1961-1965	13
		1966-1970	14

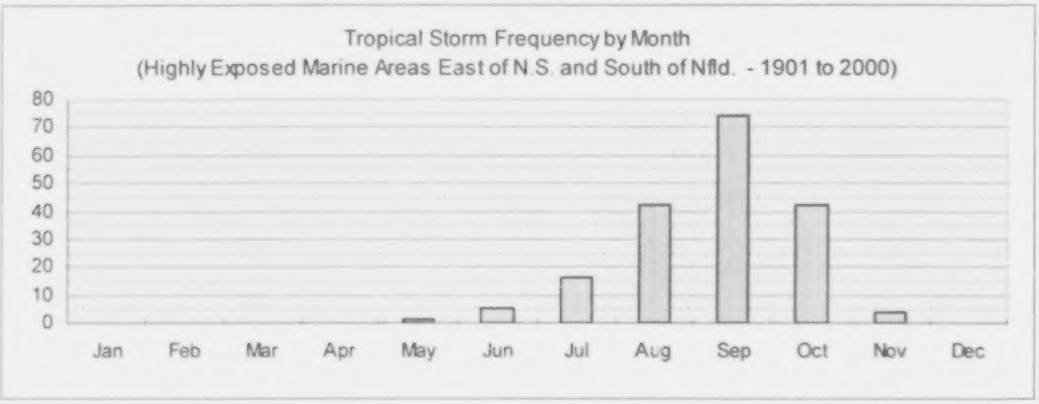
10-Year Period	Number of Storms	5-Year Period	Number of Storms
1971-1980	17	1971-1975	11
		1976-1980	6
1981-1990	17	1981-1985	10
		1986-1990	7
1991-2000	28	1991-1995	10
		1996-2000	18

Yearly Frequency - Highly Exposed Atlantic Marine Areas



Year	#	Year	#	Year	#	Year	#	Year	#
1901	2	1921	1	1941	1	1961	2	1981	3
1902	1	1922	1	1942	3	1962	3	1982	2
1903	0	1923	2	1943	5	1963	4	1983	0
1904	1	1924	4	1944	5	1964	4	1984	4
1905	0	1925	0	1945	2	1965	0	1985	1
1906	1	1926	2	1946	2	1966	2	1986	1
1907	1	1927	2	1947	0	1967	1	1987	0
1908	2	1928	0	1948	3	1968	1	1988	2
1909	0	1929	0	1949	3	1969	8	1989	2
1910	0	1930	0	1950	4	1970	2	1990	2
1911	0	1931	0	1951	0	1971	3	1991	1
1912	1	1932	1	1952	1	1972	0	1992	1
1913	0	1933	4	1953	4	1973	2	1993	1
1914	0	1934	1	1954	1	1974	3	1994	1
1915	1	1935	3	1955	2	1975	3	1995	6
1916	1	1936	3	1956	2	1976	1	1996	4
1917	1	1937	5	1957	1	1977	2	1997	2
1918	1	1938	0	1958	4	1978	1	1998	3
1919	0	1939	1	1959	3	1979	1	1999	3
1920	0	1940	3	1960	1	1980	1	2000	6

Monthly Frequency - Highly Exposed Atlantic Marine Areas

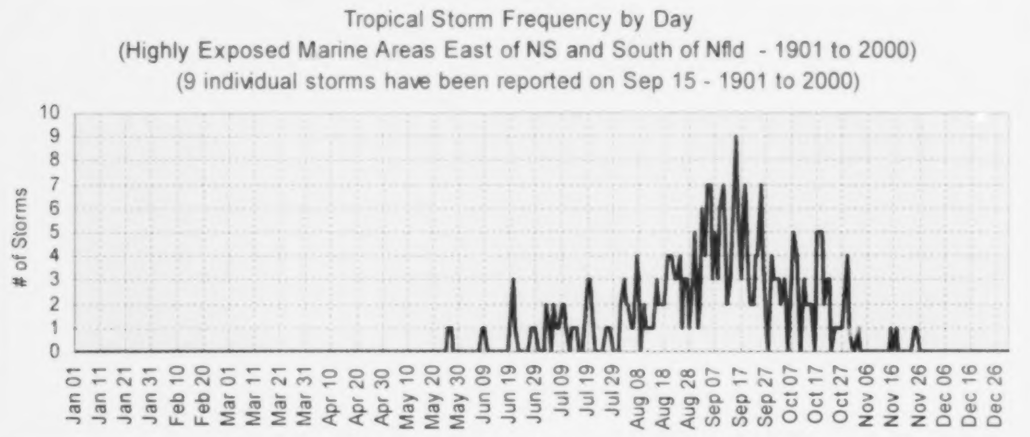


Note: Storms that span months were counted in both months

May	#	June	#	July	#	August	#	September	#	October	#	November	#
1940	1	1934	1	1944	1	1908	1	1904	1	1902	1	1912	1
		1945	1	1946	1	1924	1	1906	1	1907	1	1924	1
		1959	1	1959	1	1926	1	1908	1	1923	1	1981	1
		1982	1	1971	1	1927	1	1915	1	1935	1	1991	1
		1995	1	1973	1	1933	1	1916	1	1939	1		
				1974	1	1935	1	1917	1	1944	1		
				1985	1	1936	1	1918	1	1949	1		
				1996	1	1943	1	1921	1	1950	1		
				1966	2	1944	1	1922	1	1959	1		
				1975	2	1949	1	1923	1	1968	1		
				1995	2	1950	1	1926	1	1970	1		
				1997	2	1953	1	1927	1	1973	1		
						1955	1	1932	1	1975	1		
						1956	1	1933	1	1977	1		
						1960	1	1935	1	1979	1		
						1962	1	1941	1	1984	1		
						1970	1	1942	1	1990	1		
						1974	1	1945	1	1991	1		
						1976	1	1946	1	1992	1		
						1981	1	1949	1	1996	1		
						1984	1	1952	1	1999	1		
						1986	1	1953	1	1901	2		
						1989	1	1954	1	1933	2		
						1990	1	1955	1	1942	2		
						1994	1	1956	1	1943	2		
						1995	1	1957	1	1953	2		
						1998	1	1958	1	1961	2		
						1937	2	1962	1	1962	2		
						1963	2	1967	1	1963	2		
						1971	2	1974	1	1969	2		
						1988	2	1977	1	2000	3		
						1958	3	1978	1				
						1969	4	1980	1				
								1981	1				
								1982	1				
								1989	1				

May	#	June	#	July	#	August	#	September	#	October	#	November	#
								1993	1				
								1924	2				
								1936	2				
								1940	2				
								1943	2				
								1944	2				
								1950	2				
								1969	2				
								1984	2				
								1995	2				
								1996	2				
								1998	2				
								1999	2				
								1937	3				
								1948	3				
								2000	3				
								1964	4				
Total	1	**Total**	5	**Total**	16	**Total**	42	**Total**	74	**Total**	42	**Total**	4

Daily Frequency - Highly Exposed Atlantic Marine Areas


Tropical Storm Frequency by Day
(Highly Exposed Marine Areas East of NS and South of Nfld - 1901 to 2000)
(9 individual storms have been reported on Sep 15 - 1901 to 2000)

Note: Storms will generally span more than one day. The storm is counted in each day

Day	#	Day	#	Day	#	Day	#	Day	#	Day	#
Jan 01	0	Mar 01	0	May 01	0	Jul 01	0	Sep 01	2	Nov 01	0
Jan 02	0	Mar 02	0	May 02	0	Jul 02	0	Sep 02	6	Nov 02	1
Jan 03	0	Mar 03	0	May 03	0	Jul 03	2	Sep 03	4	Nov 03	0
Jan 04	0	Mar 04	0	May 04	0	Jul 04	1	Sep 04	7	Nov 04	0
Jan 05	0	Mar 05	0	May 05	0	Jul 05	0	Sep 05	7	Nov 05	0
Jan 06	0	Mar 06	0	May 06	0	Jul 06	2	Sep 06	3	Nov 06	0
Jan 07	0	Mar 07	0	May 07	0	Jul 07	1	Sep 07	5	Nov 07	0
Jan 08	0	Mar 08	0	May 08	0	Jul 08	1	Sep 08	3	Nov 08	0
Jan 09	0	Mar 09	0	May 09	0	Jul 09	2	Sep 09	6	Nov 09	0
Jan 10	0	Mar 10	0	May 10	0	Jul 10	2	Sep 10	7	Nov 10	0
Jan 11	0	Mar 11	0	May 11	0	Jul 11	1	Sep 11	5	Nov 11	0

Day	#	Day	#	Day	#	Day	#	Day	#	Day	#
Jan 12	0	Mar 12	0	May 12	0	Jul 12	0	Sep 12	2	Nov 12	0
Jan 13	0	Mar 13	0	May 13	0	Jul 13	1	Sep 13	3	Nov 13	0
Jan 14	0	Mar 14	0	May 14	0	Jul 14	1	Sep 14	5	Nov 14	0
Jan 15	0	Mar 15	0	May 15	0	Jul 15	1	Sep 15	9	Nov 15	1
Jan 16	0	Mar 16	0	May 16	0	Jul 16	0	Sep 16	6	Nov 16	0
Jan 17	0	Mar 17	0	May 17	0	Jul 17	0	Sep 17	3	Nov 17	1
Jan 18	0	Mar 18	0	May 18	0	Jul 18	1	Sep 18	6	Nov 18	0
Jan 19	0	Mar 19	0	May 19	0	Jul 19	3	Sep 19	7	Nov 19	0
Jan 20	0	Mar 20	0	May 20	0	Jul 20	3	Sep 20	3	Nov 20	0
Jan 21	0	Mar 21	0	May 21	0	Jul 21	1	Sep 21	2	Nov 21	0
Jan 22	0	Mar 22	0	May 22	0	Jul 22	0	Sep 22	2	Nov 22	0
Jan 23	0	Mar 23	0	May 23	0	Jul 23	0	Sep 23	4	Nov 23	0
Jan 24	0	Mar 24	0	May 24	0	Jul 24	0	Sep 24	4	Nov 24	1
Jan 25	0	Mar 25	0	May 25	0	Jul 25	0	Sep 25	7	Nov 25	1
Jan 26	0	Mar 26	0	May 26	1	Jul 26	1	Sep 26	4	Nov 26	0
Jan 27	0	Mar 27	0	May 27	1	Jul 27	1	Sep 27	1	Nov 27	0
Jan 28	0	Mar 28	0	May 28	0	Jul 28	1	Sep 28	0	Nov 28	0
Jan 29	0	Mar 29	0	May 29	0	Jul 29	0	Sep 29	4	Nov 29	0
Jan 30	0	Mar 30	0	May 30	0	Jul 30	0	Sep 30	3	Nov 30	0
Jan 31	0	Mar 31	0	May 31	0	Jul 31	0	Oct 01	3	Dec 01	0
Feb 01	0	Apr 01	0	Jun 01	0	Aug 01	2	Oct 02	3	Dec 02	0
Feb 02	0	Apr 02	0	Jun 02	0	Aug 02	3	Oct 03	2	Dec 03	0
Feb 03	0	Apr 03	0	Jun 03	0	Aug 03	2	Oct 04	3	Dec 04	0
Feb 04	0	Apr 04	0	Jun 04	0	Aug 04	2	Oct 05	2	Dec 05	0
Feb 05	0	Apr 05	0	Jun 05	0	Aug 05	1	Oct 06	0	Dec 06	0
Feb 06	0	Apr 06	0	Jun 06	0	Aug 06	1	Oct 07	3	Dec 07	0
Feb 07	0	Apr 07	0	Jun 07	0	Aug 07	4	Oct 08	5	Dec 08	0
Feb 08	0	Apr 08	0	Jun 08	1	Aug 08	3	Oct 09	4	Dec 09	0
Feb 09	0	Apr 09	0	Jun 09	1	Aug 09	0	Oct 10	2	Dec 10	0
Feb 10	0	Apr 10	0	Jun 10	0	Aug 10	2	Oct 11	0	Dec 11	0
Feb 11	0	Apr 11	0	Jun 11	0	Aug 11	1	Oct 12	3	Dec 12	0
Feb 12	0	Apr 12	0	Jun 12	0	Aug 12	1	Oct 13	2	Dec 13	0
Feb 13	0	Apr 13	0	Jun 13	0	Aug 13	1	Oct 14	2	Dec 14	0
Feb 14	0	Apr 14	0	Jun 14	0	Aug 14	1	Oct 15	2	Dec 15	0
Feb 15	0	Apr 15	0	Jun 15	0	Aug 15	3	Oct 16	0	Dec 16	0
Feb 16	0	Apr 16	0	Jun 16	0	Aug 16	2	Oct 17	5	Dec 17	0
Feb 17	0	Apr 17	0	Jun 17	0	Aug 17	2	Oct 18	5	Dec 18	0
Feb 18	0	Apr 18	0	Jun 18	0	Aug 18	2	Oct 19	5	Dec 19	0
Feb 19	0	Apr 19	0	Jun 19	1	Aug 19	4	Oct 20	2	Dec 20	0
Feb 20	0	Apr 20	0	Jun 20	3	Aug 20	4	Oct 21	3	Dec 21	0
Feb 21	0	Apr 21	0	Jun 21	1	Aug 21	4	Oct 22	3	Dec 22	0
Feb 22	0	Apr 22	0	Jun 22	0	Aug 22	3	Oct 23	0	Dec 23	0
Feb 23	0	Apr 23	0	Jun 23	0	Aug 23	3	Oct 24	1	Dec 24	0
Feb 24	0	Apr 24	0	Jun 24	0	Aug 24	4	Oct 25	1	Dec 25	0
Feb 25	0	Apr 25	0	Jun 25	0	Aug 25	1	Oct 26	1	Dec 26	0
Feb 26	0	Apr 26	0	Jun 26	0	Aug 26	3	Oct 27	1	Dec 27	0
Feb 27	0	Apr 27	0	Jun 27	1	Aug 27	3	Oct 28	3	Dec 28	0
Feb 28	0	Apr 28	0	Jun 28	1	Aug 28	1	Oct 29	4	Dec 29	0
Feb 29	0	Apr 29	0	Jun 29	1	Aug 29	3	Oct 30	1	Dec 30	0

Summary Statistics - Highly Exposed Atlantic Marine Areas

100 Yr	**TD**	**TS**	**G**	**S**	**S1**	**S2**	**S3**	**S4**	**S5**	**H**	**<H**	**ALL**	**Sys-Spd**
#	7	81	39	42	68	20	5	1	0	94	88	182	28.4
Return	14.3	1.2	2.6	2.4	1.5	5	20	100	NA	1.1	1.1	0.5	
50 Yr	**TD**	**TS**	**G**	**S**	**S1**	**S2**	**S3**	**S4**	**S5**	**H**	**<H**	**ALL**	**Sys-Spd**
#	6	48	15	33	41	8	4	1	0	54	54	108	29.1
Return	8.3	1	3.3	1.5	1.2	6.3	12.5	50	NA	0.9	0.9	0.5	

Table: storm name, number, date, maximum wind, etc - Highly Exposed Atlantic Marine Areas.

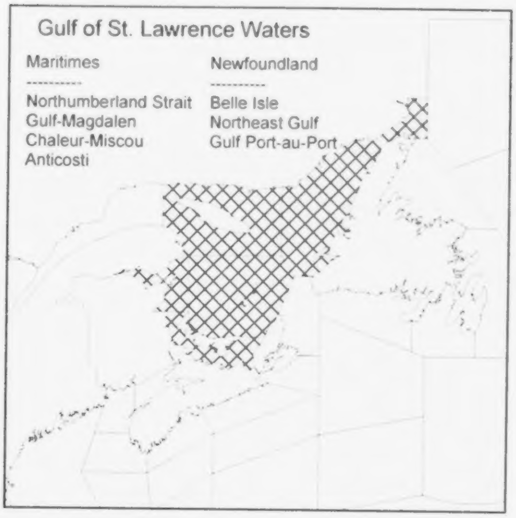
Name	Date	Storm #	MaxWind (kts)	SS Scale	AvgSysSpd (kts)	Pres (mb)	Comment	ENSO
Not Named	Oct 01, 1901	8	35	TS	32.7		E	Neutral
Not Named	Oct 13, 1901	9	35	TS	25.4		E	Neutral
Not Named	Oct 13, 1902	4	40	TS	36.3		E	El Nino
Not Named	Sep 15, 1904	2	65	SS1	59.8		E	El Nino
Not Named	Sep 11, 1906	3	80	SS1	39.2			La Nina
Not Named	Oct 19, 1907	4	45	TS	35.4			Neutral
Not Named	Aug 02, 1908	2	85	SS2	22.9			La Nina
Not Named	Sep 17, 1908	4	70	SS1	20.0			La Nina
Not Named	Nov 24, 1912	6	65	SS1	39.4			Neutral
Not Named	Sep 10, 1915	3	55	TS	23.1		E	Neutral
Not Named	Sep 24, 1916	10	85	SS2	40.5			La Nina
Not Named	Sep 05, 1917	2	90	SS2	35.9			Neutral
Not Named	Sep 06, 1918	4	65	SS1	21.4			El Nino
Not Named	Sep 16, 1921	3	90	SS2	52.1			Neutral
Not Named	Sep 23, 1922	2	95	SS2	18.9		E	La Nina
Not Named	Sep 09, 1923	1	70	SS1	23.3			Neutral
Not Named	Oct 01, 1923	2	85	SS2	14.5		E	Neutral
Not Named	Aug 26, 1924	2	90	SS2	38.7			La Nina
Not Named	Sep 04, 1924	3	75	SS1	25.7		E	La Nina
Not Named	Sep 18, 1924	4	40	TS	33.2		E	La Nina
Not Named	Nov 15, 1924	8	40	TS	31.9		E	La Nina
Not Named	Aug 07, 1926	2	80	SS1	24.1			Neutral
Not Named	Sep 22, 1926	4	65	SS1	14.5		E	Neutral
Not Named	Aug 24, 1927	1	90	SS2	49.7		E	Neutral
Not Named	Sep 29, 1927	4	80	SS1	13.0		E	Neutral
Not Named	Sep 09, 1932	4	90	SS2	16.5			Neutral
Not Named	Aug 29, 1933	9	35	TS	22.7			Neutral
Not Named	Sep 18, 1933	13	65	SS1	21.9		E	Neutral
Not Named	Oct 07, 1933	18	100	SS3	24.3			Neutral
Not Named	Oct 28, 1933	20	60	TS	18.4			Neutral
Not Named	Jun 20, 1934	2	40	TS	24.6		E	Neutral
Not Named	Aug 24, 1935	1	80	SS1	22.4			Neutral
Not Named	Sep 07, 1935	2	80	SS1	40.0		E	Neutral
Not Named	Oct 01, 1935	4	75	SS1	29.2		E	Neutral
Not Named	Aug 10, 1936	6	40	TS	20.5		E	Neutral
Not Named	Sep 19, 1936	13	80	SS1	28.4			Neutral
Not Named	Sep 24, 1936	15	75	SS1	23.0			Neutral
Not Named	Aug 01, 1937	1	50	TS	16.0			Neutral
Not Named	Aug 07, 1937	2	45	TS	13.7			Neutral
Not Named	Sep 13, 1937	4	70	SS1	27.8			Neutral
Not Named	Sep 26, 1937	7	80	SS1	22.8		E	Neutral

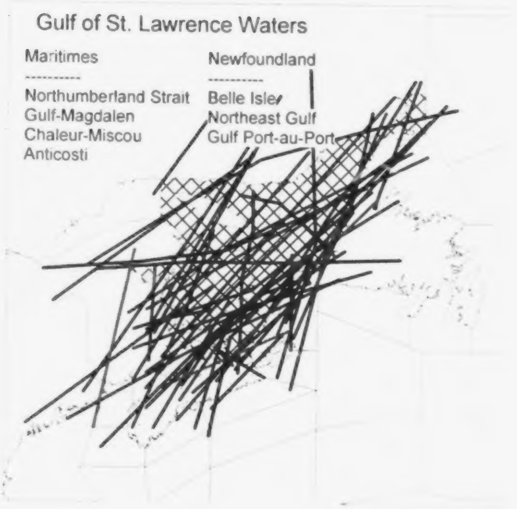
Name	Date	Storm #	MaxWind (kts)	SS Scale	AvgSysSpd (kts)	Pres (mb)	Comment	ENSO
Not Named	Sep 29, 1937	8	35	TS	24.7		E	Neutral
Not Named	Oct 17, 1939	4	95	SS2	38.8			Neutral
Not Named	May 26, 1940	1	35	TS	12.3			El Nino
Not Named	Sep 02, 1940	4	70	SS1	16.4			El Nino
Not Named	Sep 16, 1940	5	70	SS1	17.9			El Nino
Not Named	Sep 25, 1941	3	35	TS	19.4			Neutral
Not Named	Sep 22, 1942	5	35	TS	13.2		E	La Nina
Not Named	Oct 04, 1942	7	40	TS	27.5		E	La Nina
Not Named	Oct 18, 1942	9	35	TS	37.9			La Nina
Not Named	Aug 26, 1943	3	65	SS1	30.4			Neutral
Not Named	Sep 09, 1943	4	75	SS1	28.6			Neutral
Not Named	Sep 15, 1943	5	40	TS	23.7		E	Neutral
Not Named	Oct 03, 1943	8	45	TS	22.4			Neutral
Not Named	Oct 17, 1943	9	40	TS	42.5		E	Neutral
Not Named	Jul 19, 1944	1	50	TS	37.2		E	La Nina
Not Named	Aug 04, 1944	3	35	TS	10.6			La Nina
Not Named	Sep 15, 1944	7	35	TS	41.7	982	E	La Nina
Not Named	Sep 26, 1944	9	80	SS1	23.3			La Nina
Not Named	Oct 21, 1944	11	45	TS	31.7		E	La Nina
Not Named	Jun 27, 1945	1	55	TS	14.3			Neutral
Not Named	Sep 19, 1945	9	25	TD	34.4		E	Neutral
Not Named	Jul 09, 1946	2	50	TS	19.4		E	Neutral
Not Named	Sep 15, 1946	4	70	SS1	28.9			Neutral
Not Named	Sep 01, 1948	3	60	TS	29.7		E	Neutral
Not Named	Sep 15, 1948	6	80	SS1	37.2			Neutral
Not Named	Sep 25, 1948	7	55	TS	36.9		E	Neutral
Not Named	Aug 26, 1949	1	65	SS1	25.0		E	La Nina
Not Named	Sep 09, 1949	4	85	SS2	36.2			La Nina
Not Named	Oct 19, 1949	11	45	TS	12.3		E	La Nina
Able	Aug 21, 1950	1	65	SS1	26.8			Neutral
Charlie	Sep 05, 1950	3	45	TS	25.7		E	Neutral
Dog	Sep 12, 1950	4	60	TS	17.1		E	Neutral
George	Oct 04, 1950	7	95	SS2	39.4			Neutral
Baker	Sep 07, 1952	3	75	SS1	34.5	969		Neutral
Barbara	Aug 15, 1953	2	75	SS1	34.0			Neutral
Carol	Sep 07, 1953	4	70	SS1	34.0			Neutral
Not Named	Oct 07, 1953	10	60	TS	20.8		E	Neutral
Hazel	Oct 12, 1953	12	40	TS	26.5		E	Neutral
Dolly	Sep 02, 1954	4	70	SS1	34.7			La Nina
Diane	Aug 20, 1955	3	35	TS	24.6			La Nina
Ione	Sep 21, 1955	9	75	SS1	31.7			La Nina
Betsy	Aug 18, 1956	3	65	SS1	23.5			La Nina
Carla	Sep 11, 1956	4	25	TD	31.1			La Nina
Frieda	Sep 26, 1957	7	55	TS	21.5		E	El Nino
Becky	Aug 17, 1958	2	25	TD	39.8		E	Neutral
Cleo	Aug 19, 1958	3	80	SS1	33.1	979		Neutral
Daisy	Aug 29, 1958	4	90	SS2	31.4	982		Neutral
Helene	Sep 29, 1958	8	85	SS2	40.9	959		Neutral
Not Named	Jun 19, 1959	3	70	SS1	21.5		E	Neutral
Cindy	Jul 11, 1959	4	50	TS	30.2			Neutral
Gracie	Oct 02, 1959	8	25	TD	30.3		E	Neutral
Cleo	Aug 20, 1960	4	80	SS1	21.1			Neutral
Frances	Oct 08, 1961	7	100	SS3	14.5			Neutral
Gerda	Oct 20, 1961	8	60	TS	20.5			Neutral
Alma	Aug 30, 1962	1	45	TS	19.4			Neutral

Name	Date	Storm #	MaxWind (kts)	SS Scale	AvgSysSpd (kts)	Pres (mb)	Comment	ENSO
Daisy	Oct 07, 1962	4	70	SS1	16.6	975		Neutral
Ella	Oct 22, 1962	5	65	SS1	39.4			Neutral
Arlene	Aug 10, 1963	1	80	SS1	28.0			El Nino
Beulah	Aug 27, 1963	2	70	SS1	44.5			El Nino
Flora	Oct 12, 1963	7	75	SS1	23.6			El Nino
Ginny	Oct 29, 1963	8	95	SS2	33.2	958		El Nino
Cleo	Sep 04, 1964	5	75	SS1	27.6			La Nina
Dora	Sep 14, 1964	6	55	TS	28.3		E	La Nina
Ethel	Sep 14, 1964	7	75	SS1	24.8			La Nina
Gladys	Sep 24, 1964	9	65	SS1	36.2	982		La Nina
Becky	Jul 03, 1966	2	60	TS	17.6			Neutral
Celia	Jul 21, 1966	3	70	SS1	36.8	998		Neutral
Arlene	Sep 03, 1967	1	75	SS1	21.3			La Nina
Gladys	Oct 21, 1968	8	65	SS1	31.3			Neutral
Anna	Aug 03, 1969	1	55	TS	35.0	1002		El Nino
Blanche	Aug 12, 1969	2	75	SS1	41.4			El Nino
Camille	Aug 22, 1969	3	55	TS	38.2			El Nino
Debbie	Aug 23, 1969	4	90	SS2	22.9			El Nino
Gerda	Sep 09, 1969	7	110	SS3	44.6	979		El Nino
Not Named	Sep 25, 1969	10	65	SS1	22.1			El Nino
Kara	Oct 18, 1969	14	90	SS2	45.0			El Nino
Not Named	Oct 30, 1969	17	50	TS	8.7		E	El Nino
Not Named	Aug 18, 1970	4	60	TS	36.9	992		La Nina
Not Named	Oct 17, 1970	9	90	SS2	49.6	974		La Nina
Arlene	Jul 06, 1971	1	55	TS	26.3	1000		La Nina
Not Named	Aug 06, 1971	2	75	SS1	37.6	974		La Nina
Beth	Aug 15, 1971	3	75	SS1	15.0	977		La Nina
Alice	Jul 06, 1973	1	65	SS1	28.6	995		La Nina
Gilda	Oct 27, 1973	8	55	TS	33.9		S	La Nina
Subtrop 2	Jul 19, 1974	2	45	TS	17.2		S	Neutral
Subtrop 3	Aug 14, 1974	3	50	TS	12.7	992	S	Neutral
Dolly	Sep 05, 1974	7	40	TS	31.7			Neutral
Amy	Jul 03, 1975	1	50	TS	32.5	986		La Nina
Blanche	Jul 28, 1975	2	75	SS1	24.7	980		La Nina
Gladys	Oct 03, 1975	7	110	SS3	52.0	950		La Nina
Candice	Aug 23, 1976	4	80	SS1	18.1			El Nino
Dorothy	Sep 29, 1977	4	65	SS1	28.3	988		Neutral
Evelyn	Oct 15, 1977	5	70	SS1	26.3	996		Neutral
Ella	Sep 04, 1978	6	120	SS4	39.1	956		Neutral
Subtrop 1	Oct 24, 1979	9	65	SS1	38.8	985	S	Neutral
Georges	Sep 08, 1980	7	70	SS1	38.9	993		Neutral
Cindy	Aug 05, 1981	3	45	TS	21.5	1005		Neutral
Emily	Sep 07, 1981	5	65	SS1	7.2	978		Neutral
Subtrop 3	Nov 17, 1981	12	50	TS	17.8	985	S	Neutral
Subtrop 1	Jun 20, 1982	2	60	TS	39.9	992	S	El Nino
Debby	Sep 18, 1982	5	110	SS3	26.6	954		El Nino
Subtrop 1	Aug 20, 1984	1	45	TS	21.9	1000	S	Neutral
Cesar	Sep 02, 1984	4	50	TS	14.4	994		Neutral
Diana	Sep 15, 1984	5	60	TS	39.7	992		Neutral
Josephine	Oct 17, 1984	11	60	TS	9.1	990		Neutral
Ana	Jul 19, 1985	1	60	TS	24.6	996		Neutral
Charley	Aug 19, 1986	3	45	TS	13.8	1000		El Nino
Alberto	Aug 07, 1988	1	35	TS	21.7	1002		La Nina
Chris	Aug 30, 1988	3	25	TD	38.0	1008		La Nina
Dean	Aug 07, 1989	4	80	SS1	31.6	972		Neutral

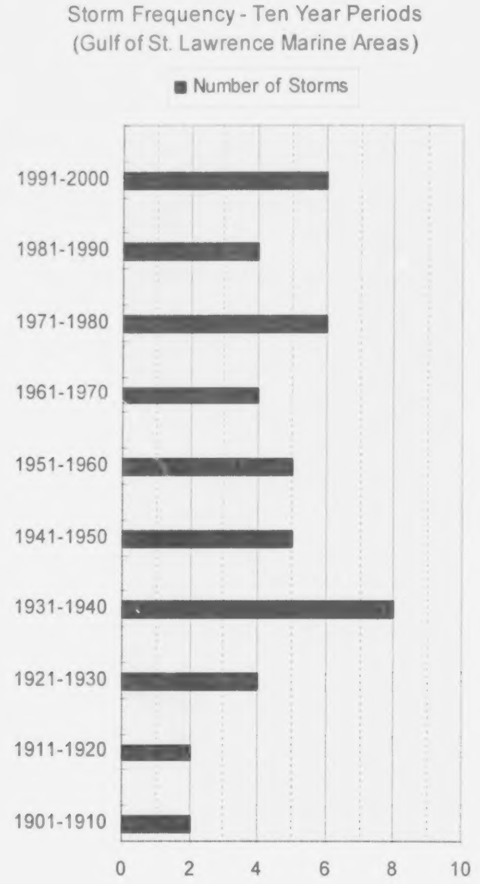
Name	Date	Storm #	MaxWind (kts)	SS Scale	AvgSysSpd (kts)	Pres (mb)	Comment	ENSO
Gabrielle	Sep 13, 1989	7	30	TD	17.2	1009		Neutral
Bertha	Aug 02, 1990	2	70	SS1	17.7	973		Neutral
Lili	Oct 14, 1990	12	50	TS	35.8	995		Neutral
Unnamed	Nov 02, 1991	8	65	SS1	19.6	981		El Nino
Frances	Oct 26, 1992	7	60	TS	18.7	985		Neutral
Floyd	Sep 09, 1993	6	65	SS1	41.1	990		Neutral
Chris	Aug 23, 1994	3	45	TS	35.7	1003		Neutral
Allison	Jun 08, 1995	1	50	TS	22.0	982	E	Neutral
Barry	Jul 09, 1995	2	50	TS	22.0	996		Neutral
Chantal	Jul 20, 1995	3	50	TS	31.6	999		Neutral
Felix	Aug 21, 1995	6	50	TS	37.2	988		Neutral
Iris	Sep 04, 1995	9	65	SS1	30.5	987		Neutral
Luis	Sep 10, 1995	12	80	SS1	45.4	966		Neutral
Bertha	Jul 14, 1996	2	50	TS	34.9	995	E	Neutral
Edouard	Sep 02, 1996	5	65	SS1	13.0	972		Neutral
Hortense	Sep 14, 1996	8	85	SS2	23.7	960		Neutral
Josephine	Oct 09, 1996	10	45	TS	31.7	980	E	Neutral
Bill	Jul 13, 1997	3	60	TS	29.8	990		El Nino
Danny	Jul 26, 1997	5	45	TS	30.6	998	E	El Nino
Bonnie	Aug 29, 1998	2	45	TS	29.4	999		La Nina
Danielle	Sep 03, 1998	4	70	SS1	26.0	960		La Nina
Earl	Sep 05, 1998	5	50	TS	33.9	1000	E	La Nina
Floyd	Sep 18, 1999	6	35	TS	28.2	992	E	La Nina
Gert	Sep 23, 1999	7	60	TS	26.2	964		La Nina
Irene	Oct 18, 1999	9	80	SS1	51.8	968		La Nina
Florence	Sep 17, 2000	6	55	TS	31.6	995		La Nina
Gordon	Sep 20, 2000	7	30	TD	16.7	1005	E	La Nina
Helene	Sep 25, 2000	8	60	TS	48.1	986		La Nina
Leslie	Oct 08, 2000	12	40	TS	38.5	1004	E	La Nina
Michael	Oct 19, 2000	13	85	SS2	45.2	965		La Nina
Subtrop	Oct 29, 2000	15	55	TS	30.1	978	S	La Nina

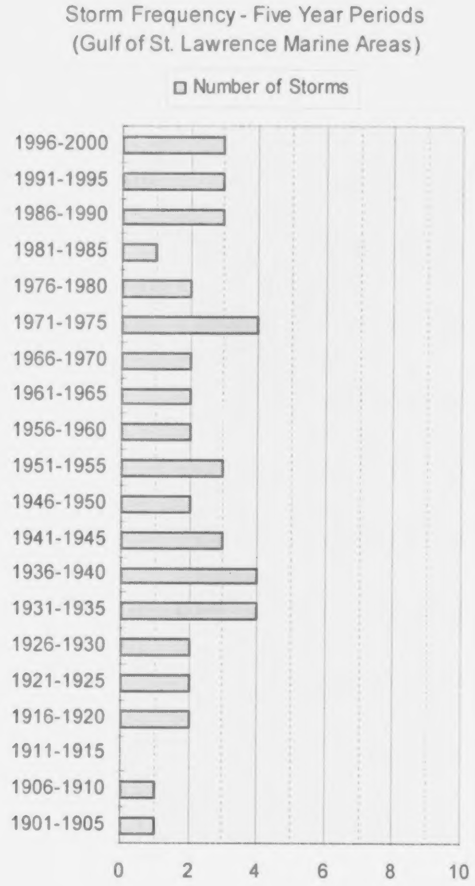
Gulf of St. Lawrence Marine Areas


Gulf of St. Lawrence Waters
Maritimes
Newfoundland
Northumberland Strait
Gulf-Magdalen
Chaleur-Miscou
Anticosti
Belle Isle
Northeast Gulf
Gulf Port-au-Port


Gulf of St. Lawrence Waters
Maritimes
Newfoundland
Northumberland Strait
Gulf-Magdalen
Chaleur-Miscou
Anticosti
Belle Isle
Northeast Gulf
Gulf Port-au-Port

Decadal and Five Year Frequency - Gulf of St. Lawrence Marine Areas

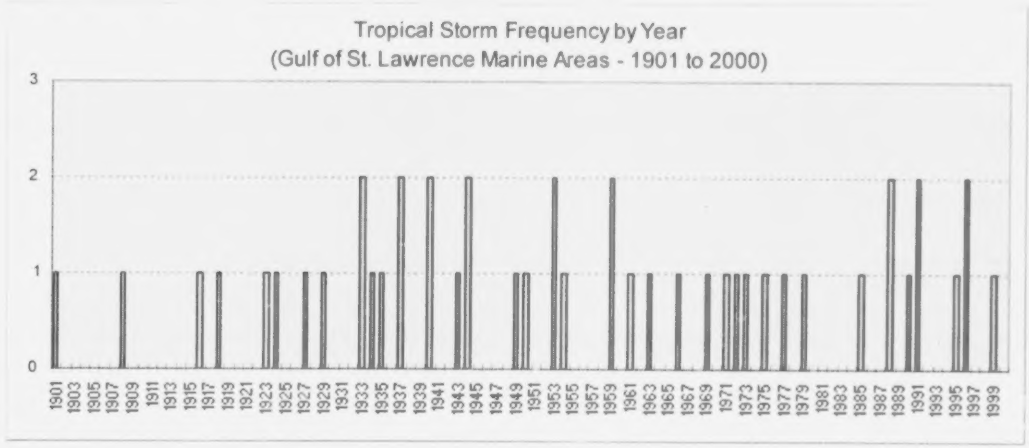




10-Year Period	Number of Storms	5-Year Period	Number of Storms
1901-1910	2	1901-1905	1
		1906-1910	1
1911-1920	2	1911-1915	0
		1916-1920	2
1921-1930	4	1921-1925	2
		1926-1930	2
1931-1940	8	1931-1935	4
		1936-1940	4
1941-1950	5	1941-1945	3
		1946-1950	2
1951-1960	5	1951-1955	3
		1956-1960	2
1961-1970	4	1961-1965	2
		1966-1970	2

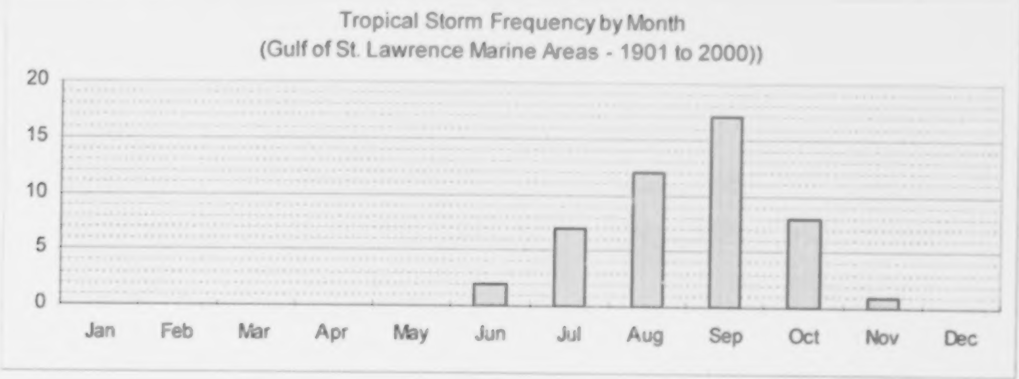
10-Year Period	Number of Storms	5-Year Period	Number of Storms
1971-1980	6	1971-1975	4
		1976-1980	2
1981-1990	4	1981-1985	1
		1986-1990	3
1991-2000	6	1991-1995	3
		1996-2000	3

Yearly Frequency - Gulf of St. Lawrence Marine Areas


Tropical Storm Frequency by Year
(Gulf of St. Lawrence Marine Areas - 1901 to 2000)

Year	#	Year	#	Year	#	Year	#	Year	#
1901	1	1921	0	1941	0	1961	1	1981	0
1902	0	1922	0	1942	0	1962	0	1982	0
1903	0	1923	1	1943	1	1963	1	1983	0
1904	0	1924	1	1944	2	1964	0	1984	0
1905	0	1925	0	1945	0	1965	0	1985	1
1906	0	1926	0	1946	0	1966	1	1986	0
1907	0	1927	1	1947	0	1967	0	1987	0
1908	1	1928	0	1948	0	1968	0	1988	2
1909	0	1929	1	1949	1	1969	1	1989	0
1910	0	1930	0	1950	1	1970	0	1990	1
1911	0	1931	0	1951	0	1971	1	1991	2
1912	0	1932	0	1952	0	1972	1	1992	0
1913	0	1933	2	1953	2	1973	1	1993	0
1914	0	1934	1	1954	1	1974	0	1994	0
1915	0	1935	1	1955	0	1975	1	1995	1
1916	1	1936	0	1956	0	1976	0	1996	2
1917	0	1937	2	1957	0	1977	1	1997	0
1918	1	1938	0	1958	0	1978	0	1998	0
1919	0	1939	0	1959	2	1979	1	1999	1
1920	0	1940	2	1960	0	1980	0	2000	0

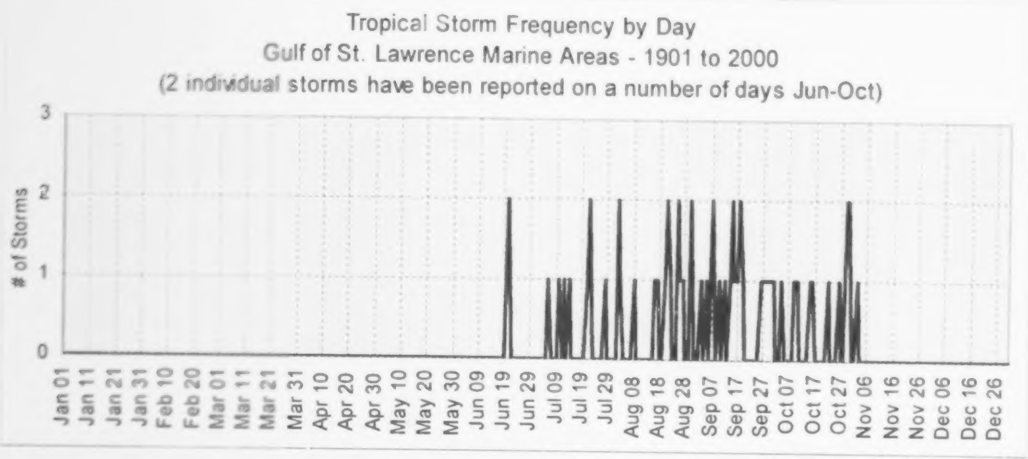
Monthly Frequency - Gulf of St. Lawrence Marine Areas


Tropical Storm Frequency by Month
(Gulf of St. Lawrence Marine Areas - 1901 to 2000))

Note: Storms that span months were counted in both months

June	#	July	#	August	#	September	#	October	#	November	#
1934	1	1916	1	1908	1	1901	1	1901	1	1991	1
1959	1	1959	1	1924	1	1918	1	1923	1		
		1966	1	1927	1	1933	1	1929	1		
		1973	1	1935	1	1943	1	1933	1		
		1975	1	1949	1	1944	1	1944	1		
		1995	1	1950	1	1953	1	1963	1		
		1996	1	1953	1	1954	1	1977	1		
				1971	1	1961	1	1996	1		
				1990	1	1969	1				
				1991	1	1972	1				
				1988	2	1979	1				
						1985	1				
						1999	1				
						1937	2				
						1940	2				
Total	**2**	**Total**	**7**	**Total**	**12**	**Total**	**17**	**Total**	**8**	**Total**	**1**

Daily Frequency - Gulf of St. Lawrence Marine Areas



Note: Storms will generally span more than one day. The storm is counted in each day

Day	#	Day	#	Day	#	Day	#	Day	#	Day	#
Jun 01	0	Jul 01	0	Aug 01	0	Sep 01	0	Oct 01	1	Nov 01	0
Jun 02	0	Jul 02	0	Aug 02	2	Sep 02	0	Oct 02	0	Nov 02	1
Jun 03	0	Jul 03	0	Aug 03	1	Sep 03	1	Oct 03	0	Nov 03	0
Jun 04	0	Jul 04	0	Aug 04	0	Sep 04	0	Oct 04	1	Nov 04	0
Jun 05	0	Jul 05	0	Aug 05	0	Sep 05	1	Oct 05	0	Nov 05	0
Jun 06	0	Jul 06	1	Aug 06	0	Sep 06	0	Oct 06	0	Nov 06	0
Jun 07	0	Jul 07	0	Aug 07	0	Sep 07	2	Oct 07	0	Nov 07	0
Jun 08	0	Jul 08	0	Aug 08	1	Sep 08	1	Oct 08	0	Nov 08	0
Jun 09	0	Jul 09	0	Aug 09	0	Sep 09	0	Oct 09	1	Nov 09	0
Jun 10	0	Jul 10	1	Aug 10	0	Sep 10	1	Oct 10	1	Nov 10	0
Jun 11	0	Jul 11	0	Aug 11	0	Sep 11	0	Oct 11	0	Nov 11	0
Jun 12	0	Jul 12	1	Aug 12	0	Sep 12	1	Oct 12	0	Nov 12	0
Jun 13	0	Jul 13	0	Aug 13	0	Sep 13	0	Oct 13	0	Nov 13	0
Jun 14	0	Jul 14	1	Aug 14	0	Sep 14	1	Oct 14	0	Nov 14	0
Jun 15	0	Jul 15	0	Aug 15	0	Sep 15	2	Oct 15	1	Nov 15	0
Jun 16	0	Jul 16	0	Aug 16	1	Sep 16	1	Oct 16	1	Nov 16	0
Jun 17	0	Jul 17	0	Aug 17	1	Sep 17	1	Oct 17	0	Nov 17	0
Jun 18	0	Jul 18	0	Aug 18	0	Sep 18	2	Oct 18	0	Nov 18	0
Jun 19	0	Jul 19	0	Aug 19	0	Sep 19	1	Oct 19	0	Nov 19	0
Jun 20	2	Jul 20	0	Aug 20	1	Sep 20	0	Oct 20	0	Nov 20	0
Jun 21	1	Jul 21	1	Aug 21	2	Sep 21	0	Oct 21	0	Nov 21	0
Jun 22	0	Jul 22	2	Aug 22	1	Sep 22	0	Oct 22	1	Nov 22	0
Jun 23	0	Jul 23	0	Aug 23	0	Sep 23	0	Oct 23	0	Nov 23	0
Jun 24	0	Jul 24	0	Aug 24	0	Sep 24	0	Oct 24	0	Nov 24	0
Jun 25	0	Jul 25	0	Aug 25	2	Sep 25	0	Oct 25	0	Nov 25	0
Jun 26	0	Jul 26	0	Aug 26	1	Sep 26	1	Oct 26	1	Nov 26	0
Jun 27	0	Jul 27	0	Aug 27	1	Sep 27	1	Oct 27	0	Nov 27	0
Jun 28	0	Jul 28	1	Aug 28	0	Sep 28	1	Oct 28	0	Nov 28	0
Jun 29	0	Jul 29	0	Aug 29	0	Sep 29	1	Oct 29	2	Nov 29	0
Jun 30	0	Jul 30	0	Aug 30	2	Sep 30	1	Oct 30	2	Nov 30	0
		Jul 31	0	Aug 31	0			Oct 31	0		

Summary Statistics - Gulf of St. Lawrence

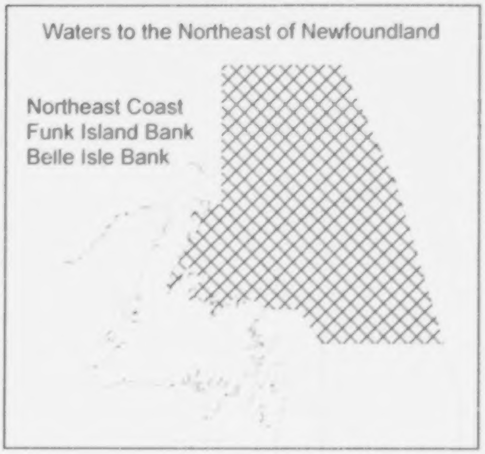
100 Yr	**TD**	**TS**	**G**	**S**	**S1**	**S2**	**S3**	**S4**	**S5**	**H**	**<H**	**ALL**	**Sys-Spd**
#	5	32	17	15	5	4	0	0	0	9	37	46	28.9
Return	20	3.1	5.9	6.7	20	25	NA	NA	NA	11.1	2.7	2.2	
50 Yr	**TD**	**TS**	**G**	**S**	**S1**	**S2**	**S3**	**S4**	**S5**	**H**	**<H**	**ALL**	**Sys-Spd**
#	1	19	8	11	3	2	0	0	0	5	20	25	30.1
Return	50	2.6	6.3	4.5	16.7	25	NA	NA	NA	10	2.5	2	

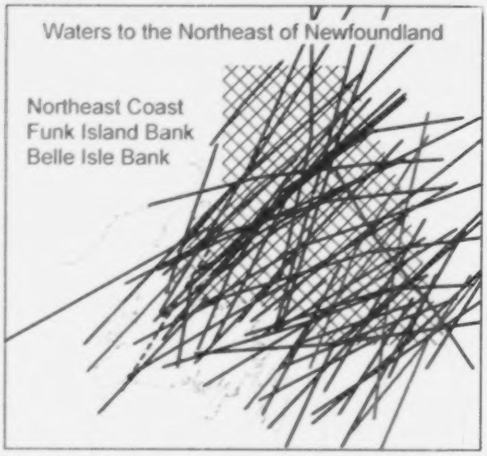
Table: storm name, number, date, maximum wind, etc. - Gulf of St. Lawrence

Name	Date	Storm #	MaxWind (kts)	SS Scale	AvgSysSpd (kts)	Pres (mb)	Comment	ENSO
Not Named	Sep 30, 1901	8	30	TD	25.6		E	Neutral
Not Named	Aug 02, 1908	2	75	SS1	30.3		E	La Nina
Not Named	Jul 22, 1916	2	45	TS	40.6			La Nina
Not Named	Sep 07, 1918	4	45	TS	20.5		E	El Nino
Not Named	Oct 26, 1923	4	30	TD	21.3		E	Neutral
Not Named	Aug 27, 1924	2	85	SS2	33.1		E	La Nina
Not Named	Aug 25, 1927	1	90	SS2	51.0		E	Neutral
Not Named	Oct 04, 1929	2	25	TD	62.0		E	El Nino
Not Named	Sep 18, 1933	13	60	TS	15.1		E	Neutral
Not Named	Oct 29, 1933	20	55	TS	11.6		E	Neutral
Not Named	Jun 20, 1934	2	40	TS	18.2		E	Neutral
Not Named	Aug 25, 1935	1	55	TS	7.2		E	Neutral
Not Named	Sep 14, 1937	4	35	TS	24.1			Neutral
Not Named	Sep 26, 1937	7	75	SS1	26.3		E	Neutral
Not Named	Sep 03, 1940	4	45	TS	26.6			El Nino
Not Named	Sep 17, 1940	5	55	TS	15.2			El Nino
Not Named	Sep 16, 1943	5	35	TS	21.2		E	Neutral
Not Named	Sep 15, 1944	7	35	TS	40.1		E	La Nina
Not Named	Oct 22, 1944	11	45	TS	32.2		E	La Nina
Not Named	Aug 30, 1949	2	30	TD	27.9		E	La Nina
Able	Aug 21, 1950	1	35	TS	25.3			Neutral
Barbara	Aug 16, 1953	2	55	TS	41.7		E	Neutral
Carol	Sep 08, 1953	4	60	TS	30.6		E	Neutral
Edna	Sep 12, 1954	5	65	SS1	44.8		E	La Nina
Not Named	Jun 20, 1959	3	60	TS	10.1		E	Neutral
Cindy	Jul 12, 1959	4	45	TS	29.1		E	Neutral
Not Named	Sep 15, 1961	6	35	TS	60.6			Neutral
Ginny	Oct 29, 1963	8	90	SS2	27.1		E	El Nino
Celia	Jul 21, 1966	3	65	SS1	30.3		E	Neutral
Gerda	Sep 10, 1969	7	95	SS2	46.2	979		El Nino
Beth	Aug 17, 1971	3	60	TS	16.3	998	E	La Nina
Carrie	Sep 05, 1972	4	40	TS	8.9	1005	E	El Nino
Alice	Jul 06, 1973	1	60	TS	36.9	991		La Nina
Blanche	Jul 28, 1975	2	60	TS	37.5	988	E	La Nina
Evelyn	Oct 15, 1977	5	70	SS1	18.0	999		Neutral
David	Sep 07, 1979	4	50	TS	35.5	988	E	Neutral
Gloria	Sep 28, 1985	7	50	TS	24.7	987	E	Neutral
Alberto	Aug 08, 1988	1	35	TS	29.2	1004		La Nina
Chris	Aug 30, 1988	3	25	TD	38.0	1008		La Nina
Bertha	Aug 02, 1990	2	60	TS	24.0	978	E	Neutral
Bob	Aug 20, 1991	2	45	TS	26.6	998		El Nino

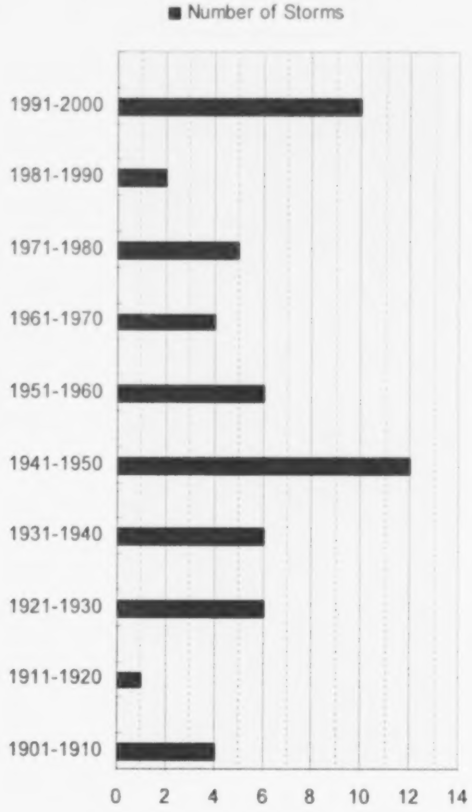
Name	Date	Storm #	MaxWind (kts)	SS Scale	AvgSysSpd (kts)	Pres (mb)	Comment	ENSO
Unnamed	Nov 02, 1991	8	50	TS	24.1	996		El Nino
Barry	Jul 10, 1995	2	45	TS	22.8	990		Neutral
Bertha	Jul 14, 1996	2	50	TS	32.3	995	E	Neutral
Josephine	Oct 09, 1996	10	45	TS	32.7	984	E	Neutral
Floyd	Sep 18, 1999	6	35	TS	24.3	990	E	La Nina

Marine Areas Northeast of Newfoundland

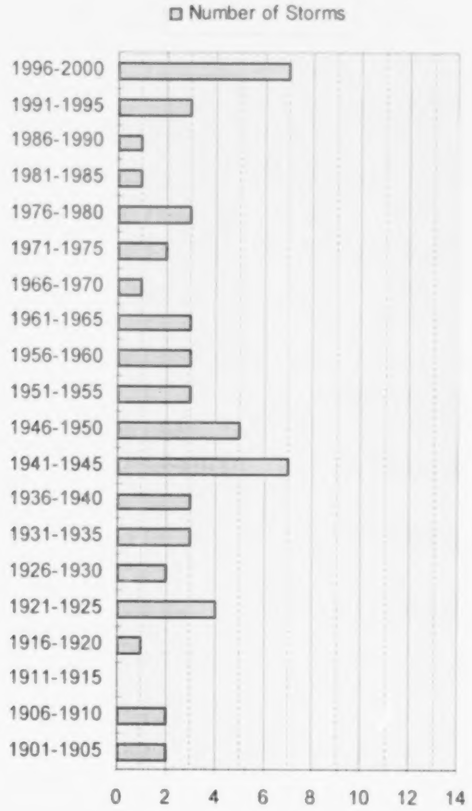

Waters to the Northeast of Newfoundland
Northeast Coast
Funk Island Bank
Belle Isle Bank


Waters to the Northeast of Newfoundland
Northeast Coast
Funk Island Bank
Belle Isle Bank

Decadal and Five Year Frequency - Marine Areas Northeast of Newfoundland



Storm Frequency - Ten Year Periods (Marine Areas Northeast of NFLD)

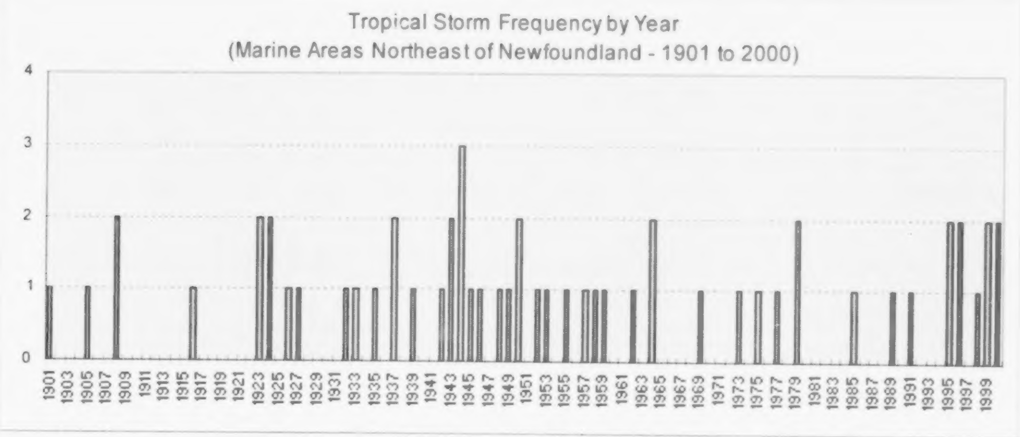


Storm Frequency - Five Year Periods (Marine Areas Northeast of NFLD)

10-Year Period	Number of Storms	5-Year Period	Number of Storms
1901-1910	4	1901-1905	2
		1906-1910	2
1911-1920	1	1911-1915	0
		1916-1920	1
1921-1930	6	1921-1925	4
		1926-1930	2
1931-1940	6	1931-1935	3
		1936-1940	3
1941-1950	12	1941-1945	7
		1946-1950	5
1951-1960	6	1951-1955	3
		1956-1960	3
1961-1970	4	1961-1965	3

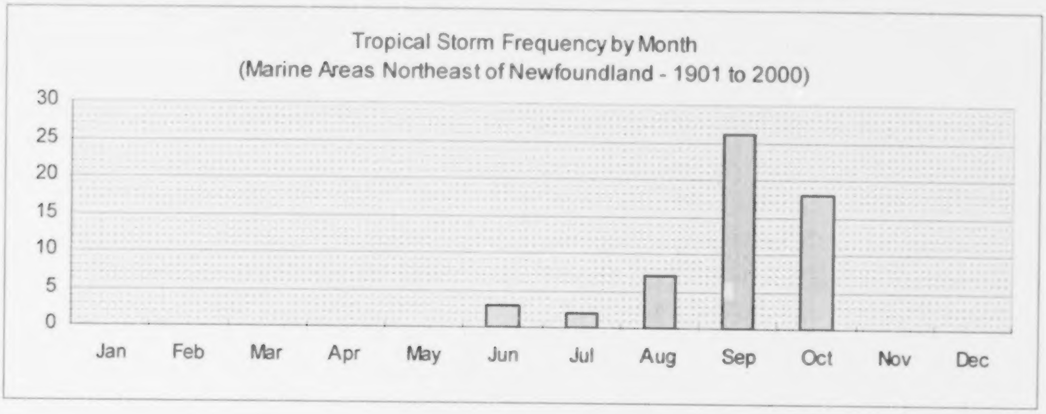
10-Year Period	Number of Storms	5-Year Period	Number of Storms
		1966-1970	1
1971-1980	5	1971-1975	2
		1976-1980	3
1981-1990	2	1981-1985	1
		1986-1990	1
1991-2000	10	1991-1995	3
		1996-2000	7

Yearly Frequency - Marine Areas Northeast of Newfoundland



Year	#	Year	#	Year	#	Year	#	Year	#
1901	1	1921	0	1941	0	1961	0	1981	0
1902	0	1922	0	1942	1	1962	1	1982	0
1903	0	1923	2	1943	2	1963	0	1983	0
1904	0	1924	2	1944	3	1964	2	1984	0
1905	1	1925	0	1945	1	1965	0	1985	1
1906	0	1926	1	1946	1	1966	0	1986	0
1907	0	1927	1	1947	0	1967	0	1987	0
1908	2	1928	0	1948	1	1968	0	1988	0
1909	0	1929	0	1949	1	1969	1	1989	1
1910	0	1930	0	1950	2	1970	0	1990	0
1911	0	1931	0	1951	0	1971	0	1991	1
1912	0	1932	1	1952	1	1972	0	1992	0
1913	0	1933	1	1953	1	1973	1	1993	0
1914	0	1934	0	1954	0	1974	0	1994	0
1915	0	1935	1	1955	1	1975	1	1995	2
1916	1	1936	0	1956	0	1976	0	1996	2
1917	0	1937	2	1957	1	1977	1	1997	0
1918	0	1938	0	1958	1	1978	0	1998	1
1919	0	1939	1	1959	1	1979	2	1999	2
1920	0	1940	0	1960	0	1980	0	2000	2

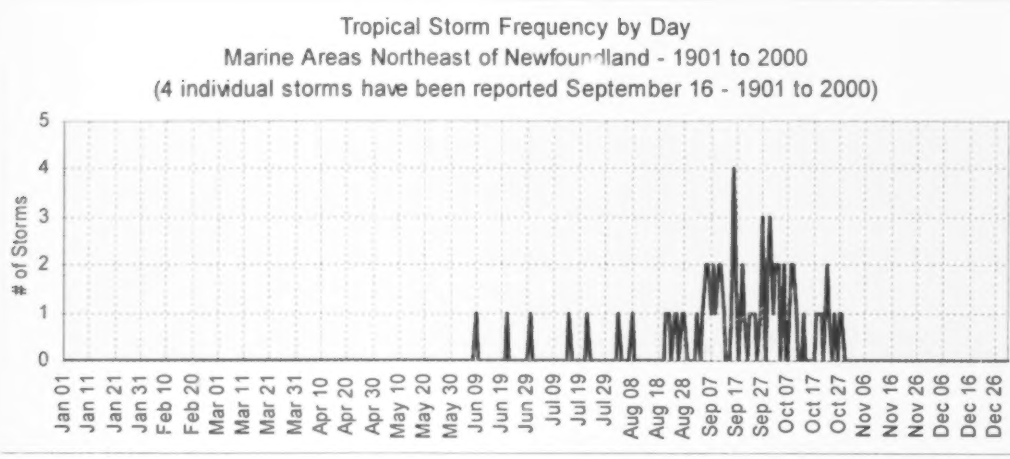
Monthly Frequency - Marine Areas Northeast of Newfoundland



Note: Storms that span months were counted in both months

June	#	July	#	August	#	September	#	October	#
1945	1	1916	1	1908	1	1908	1	1901	1
1959	1	1996	1	1924	1	1924	1	1905	1
1995	1			1927	1	1926	1	1935	1
				1950	1	1932	1	1939	1
				1969	1	1933	1	1942	1
				1989	1	1946	1	1944	1
				1991	1	1948	1	1950	1
						1949	1	1953	1
						1952	1	1962	1
						1955	1	1973	1
						1957	1	1975	1
						1958	1	1979	1
						1977	1	1996	1
						1979	1	1999	1
						1985	1	1923	2
						1995	1	2000	2
						1998	1		
						1999	1		
						1937	2		
						1943	2		
						1944	2		
						1964	2		
Total	**3**	**Total**	**2**	**Total**	**7**	**Total**	**26**	**Total**	**18**

Daily Frequency - Marine Areas Northeast of Newfoundland


Tropical Storm Frequency by Day
Marine Areas Northeast of Newfoundland - 1901 to 2000
(4 individual storms have been reported September 16 - 1901 to 2000)

Note: Storms will generally span more than one day. The storm is counted in each day

Day	#	Day	#	Day	#	Day	#	Day	#
Jun 01	0	Jul 01	0	Aug 01	0	Sep 01	0	Oct 01	1
Jun 02	0	Jul 02	0	Aug 02	0	Sep 02	1	Oct 02	2
Jun 03	0	Jul 03	0	Aug 03	1	Sep 03	0	Oct 03	2
Jun 04	0	Jul 04	0	Aug 04	0	Sep 04	1	Oct 04	0
Jun 05	0	Jul 05	0	Aug 05	0	Sep 05	2	Oct 05	2
Jun 06	0	Jul 06	0	Aug 06	0	Sep 06	2	Oct 06	0
Jun 07	0	Jul 07	0	Aug 07	0	Sep 07	1	Oct 07	0
Jun 08	0	Jul 08	0	Aug 08	1	Sep 08	2	Oct 08	2
Jun 09	1	Jul 09	0	Aug 09	0	Sep 09	1	Oct 09	2
Jun 10	0	Jul 10	0	Aug 10	0	Sep 10	2	Oct 10	1
Jun 11	0	Jul 11	0	Aug 11	0	Sep 11	2	Oct 11	0
Jun 12	0	Jul 12	0	Aug 12	0	Sep 12	1	Oct 12	0
Jun 13	0	Jul 13	0	Aug 13	0	Sep 13	0	Oct 13	1
Jun 14	0	Jul 14	0	Aug 14	0	Sep 14	0	Oct 14	0
Jun 15	0	Jul 15	1	Aug 15	0	Sep 15	1	Oct 15	0
Jun 16	0	Jul 16	0	Aug 16	0	Sep 16	4	Oct 16	0
Jun 17	0	Jul 17	0	Aug 17	0	Sep 17	1	Oct 17	0
Jun 18	0	Jul 18	0	Aug 18	0	Sep 18	0	Oct 18	1
Jun 19	0	Jul 19	0	Aug 19	0	Sep 19	2	Oct 19	1
Jun 20	0	Jul 20	0	Aug 20	0	Sep 20	1	Oct 20	1
Jun 21	1	Jul 21	0	Aug 21	1	Sep 21	0	Oct 21	0
Jun 22	0	Jul 22	1	Aug 22	1	Sep 22	1	Oct 22	2
Jun 23	0	Jul 23	0	Aug 23	0	Sep 23	1	Oct 23	1
Jun 24	0	Jul 24	0	Aug 24	1	Sep 24	1	Oct 24	0
Jun 25	0	Jul 25	0	Aug 25	1	Sep 25	0	Oct 25	1
Jun 26	0	Jul 26	0	Aug 26	0	Sep 26	1	Oct 26	0
Jun 27	0	Jul 27	0	Aug 27	1	Sep 27	3	Oct 27	1
Jun 28	0	Jul 28	0	Aug 28	1	Sep 28	0	Oct 28	1
Jun 29	0	Jul 29	0	Aug 29	0	Sep 29	2	Oct 29	0
Jun 30	1	Jul 30	0	Aug 30	0	Sep 30	3	Oct 30	0
		Jul 31	0	Aug 31	0			Oct 31	0

Summary Statistics - Northeast Newfoundland Marine Areas

100 Yr	**TD**	**TS**	**G**	**S**	**S1**	**S2**	**S3**	**S4**	**S5**	**H**	**<H**	**ALL**	**Sys-Spd**
#	2	43	19	24	9	2	0	0	0	11	45	56	30.3
Return	50	2.3	5.3	4.2	11.1	50	NA	NA	NA	9.1	2.2	1.8	
50 Yr	**TD**	**TS**	**G**	**S**	**S1**	**S2**	**S3**	**S4**	**S5**	**H**	**<H**	**ALL**	**Sys-Spd**
#	0	20	9	11	6	1	0	0	0	7	20	27	31.6
Return	NA	2.5	5.6	4.5	8.3	50	NA	NA	NA	7.1	2.5	1.9	

Table: storm name, number, date, maximum wind, etc. - Northeast Newfoundland Marine Areas

Name	Date	Storm #	MaxWind (kts)	SS Scale	AvgSysSpd (kts)	Pres (mb)	Comment	ENSO
Not Named	Oct 01, 1901	8	35	TS	32.7		E	Neutral
Not Named	Oct 13, 1905	4	40	TS	17.7		E	El Nino
Not Named	Aug 03, 1908	2	50	TS	33.7		E	La Nina
Not Named	Sep 19, 1908	4	55	TS	26.6		E	La Nina
Not Named	Jul 22, 1916	2	35	TS	52.2		E	La Nina
Not Named	Oct 02, 1923	2	60	TS	21.3		E	Neutral
Not Named	Oct 27, 1923	4	35	TS	19.3		E	Neutral
Not Named	Aug 27, 1924	2	65	SS1	30.0		E	La Nina
Not Named	Sep 05, 1924	3	50	TS	23.2		E	La Nina
Not Named	Sep 23, 1926	4	50	TS	22.8		E	Neutral
Not Named	Aug 25, 1927	1	90	SS2	41.8		E	Neutral
Not Named	Sep 11, 1932	4	60	TS	26.8		E	Neutral
Not Named	Sep 20, 1933	13	50	TS	11.5		E	Neutral
Not Named	Oct 02, 1935	4	50	TS	18.2		E	Neutral
Not Named	Sep 27, 1937	7	60	TS	25.1		E	Neutral
Not Named	Sep 30, 1937	8	35	TS	21.2		E	Neutral
Not Named	Oct 18, 1939	4	65	SS1	36.3		E	Neutral
Not Named	Oct 05, 1942	7	35	TS	27.3		E	La Nina
Not Named	Sep 09, 1943	4	55	TS	35.1			Neutral
Not Named	Sep 16, 1943	5	35	TS	35.9		E	Neutral
Not Named	Sep 16, 1944	7	30	TD	41.8		E	La Nina
Not Named	Sep 26, 1944	9	70	SS1	23.3			La Nina
Not Named	Oct 22, 1944	11	40	TS	38.7		E	La Nina
Not Named	Jun 30, 1945	1	35	TS	17.4		E	Neutral
Not Named	Sep 16, 1946	4	50	TS	26.2		E	Neutral
Not Named	Sep 02, 1948	3	45	TS	20.9		E	Neutral
Not Named	Sep 10, 1949	4	60	TS	41.5		E	La Nina
Able	Aug 22, 1950	1	30	TD	26.7			Neutral
George	Oct 05, 1950	7	60	TS	46.6		E	Neutral
Baker	Sep 08, 1952	3	60	TS	24.4		E	Neutral
Not Named	Oct 08, 1953	10	60	TS	26.7		E	Neutral
Ione	Sep 22, 1955	9	45	TS	20.1		E	La Nina
Frieda	Sep 27, 1957	7	35	TS	24.5		E	El Nino
Helene	Sep 29, 1958	8	65	SS1	34.5	968	E	Neutral
Not Named	Jun 21, 1959	3	45	TS	29.2		E	Neutral
Ella	Oct 22, 1962	5	60	TS	37.8		E	Neutral
Cleo	Sep 04, 1964	5	70	SS1	22.3			La Nina
Dora	Sep 15, 1964	6	55	TS	27.8		E	La Nina
Debbie	Aug 24, 1969	4	70	SS1	28.1			El Nino
Gilda	Oct 28, 1973	8	55	TS	43.1	968	E	La Nina
Gladys	Oct 03, 1975	7	85	SS2	51.6	960		La Nina

Name	Date	Storm #	MaxWind (kts)	SS Scale	AvgSysSpd (kts)	Pres (mb)	Comment	ENSO
Dorothy	Sep 30, 1977	4	50	TS	30.1	995	E	Neutral
David	Sep 08, 1979	4	60	TS	37.7	985	E	Neutral
Subtrop 1	Oct 25, 1979	9	50	TS	41.5	982	S	Neutral
Gloria	Sep 29, 1985	7	50	TS	20.8	990	E	Neutral
Dean	Aug 08, 1989	4	45	TS	38.5	995		Neutral
Bob	Aug 21, 1991	2	40	TS	24.3	1008	E	El Nino
Allison	Jun 09, 1995	1	40	TS	32.5	996	E	Neutral
Luis	Sep 11, 1995	12	80	SS1	57.6	963		Neutral
Bertha	Jul 15, 1996	2	50	TS	[illegible]	995	E	Neutral
Josephine	Oct 10, 1996	10	45	TS	[illegible]	985	E	Neutral
Earl	Sep 06, 1998	5	55	TS	[illegible]	964	E	La Nina
Floyd	Sep 19, 1999	6	40	TS	31.2	992	E	La Nina
Irene	Oct 19, 1999	9	80	SS1	35.8	968	E	La Nina
Leslie	Oct 08, 2000	12	35	TS	32.2	1005	E	La Nina
Michael	Oct 20, 2000	13	75	SS1	20.1	966	E	La Nina

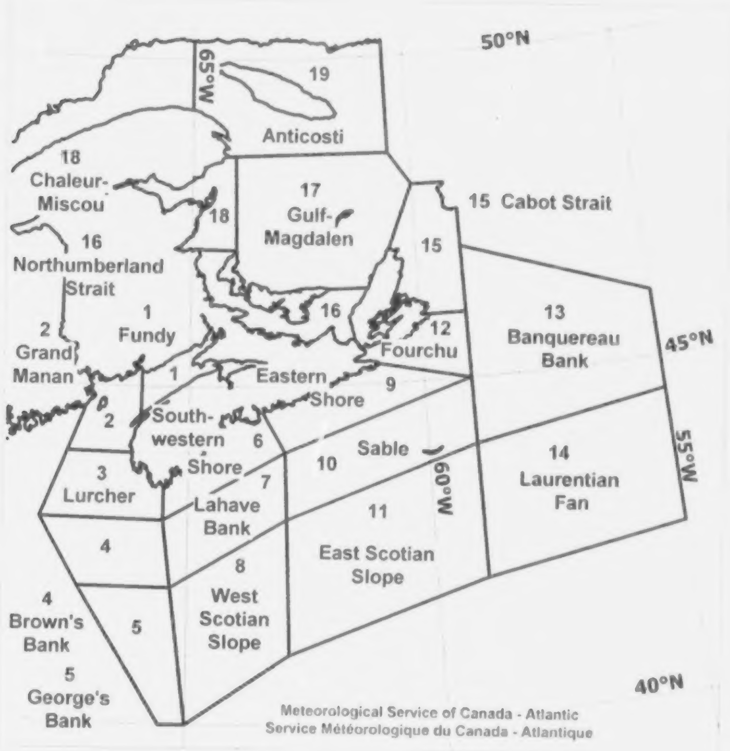
Atlantic Canada Individual Marine Area Statistics

Summary Table - Statistics For Atlantic Canada Individual Marine Areas

100 Year (1901–2000)	**TD**	**TS**	**G**	**S**	**S1**	**S2**	**S3**	**S4**	**S5**	**H**	**<H**	**ALL**	**SPD**
Fundy	2	11	6	5	2	3	0	0	0	5	13	18	32.4
Grand Manan	2	9	7	2	3	1	1	0	0	5	11	16	30.6
Lurcher	1	7	5	2	10	3	1	0	0	14	8	22	30.1
Brown's Bank	3	15	7	8	15	4	0	0	0	19	18	37	25.7
George's Bank	1	34	17	17	21	5	2	0	0	28	35	63	25.4
Southwestern Shore	0	5	2	3	7	2	0	0	0	9	5	14	22.3
Lahave Bank	2	14	5	9	10	2	0	0	0	12	16	28	24.7
West Scotian Slope	3	27	12	15	11	3	1	0	0	15	30	45	25.9
Eastern Shore	0	17	3	14	14	2	0	0	0	16	17	33	26.7
Sable	3	20	6	14	19	1	0	0	0	20	23	43	27.5
East Scotian Slope	5	33	13	20	18	5	1	1	0	25	38	63	29.2
Fourchu	1	18	4	14	10	0	0	0	0	10	19	29	28.6
Banquereau Bank	3	28	11	17	18	3	0	1	0	22	31	53	31.7
Laurentian Fan	2	33	14	19	17	6	2	1	0	26	35	61	31.7
Cabot Strait	2	19	8	11	8	0	0	0	0	8	21	29	28.2
Northumberland Strait	1	21	12	9	2	3	0	0	0	5	22	27	28.9
Gulf-Magdalen	3	21	13	8	3	1	0	0	0	4	24	28	29.0
Chaleur-Miscou	2	7	6	1	1	1	0	0	0	2	9	11	32.9
Anticosti	3	10	8	2	2	0	0	0	0	2	13	15	28.4
Belle Isle	1	6	1	5	0	1	0	0	0	1	7	8	28.7
Northeast Gulf	3	9	3	6	4	1	0	0	0	5	12	17	30.0
Gulf Port-au-Port	3	14	7	7	4	1	0	0	0	5	17	22	28.0
Southwest Coast	1	19	7	12	5	1	0	0	0	6	20	26	32.8
South Coast	1	14	5	9	6	0	0	0	0	6	15	21	32.6
East Coast	1	25	9	16	5	2	1	0	0	8	26	34	32.3
Northeast Coast	2	22	11	11	3	1	0	0	0	4	24	28	30.7
Belle Isle Bank	1	17	9	8	4	1	0	0	0	5	18	23	27.0
Funk Island Bank	1	31	15	16	6	1	0	0	0	7	32	39	30.6
Northern Grand Banks	1	30	13	17	12	2	1	0	0	15	31	46	32.3
Southeastern Grand Banks	3	28	17	11	23	4	0	0	0	27	31	58	30.7
Southwestern Grand Banks	3	42	19	23	27	4	1	1	0	33	45	78	30.4

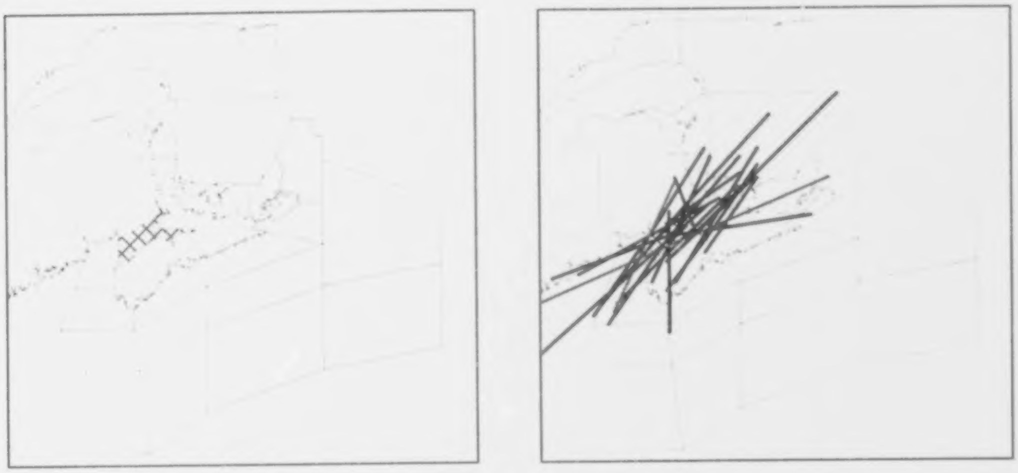
50 Year (1951–2000)	TD	TS	G	S	S1	S2	S3	S4	S5	H	<H	ALL	SPD
Fundy	1	5	3	2	1	1	0	0	0	2	6	8	31.1
Grand Manan	1	5	3	2	1	0	1	0	0	2	6	8	26.8
Lurcher	1	3	2	1	4	1	1	0	0	6	4	10	27.2
Brown's Bank	2	8	3	5	8	1	0	0	0	9	10	19	25.9
George's Bank	1	20	7	13	12	3	1	0	0	16	21	37	27.6
Southwestern Shore	0	2	0	2	3	0	0	0	0	3	2	5	22.8
Lahave Bank	2	8	1	7	5	0	0	0	0	5	10	15	27.3
West Scotian Slope	2	17	5	12	6	2	0	0	0	8	19	27	27.9
Eastern Shore	0	12	1	11	11	0	0	0	0	11	12	23	27.7
Sable	2	14	3	11	12	0	0	0	0	12	16	28	29.0
East Scotian Slope	4	21	5	16	14	2	1	1	0	18	25	43	33.1
Fourchu	0	15	3	12	8	0	0	0	0	8	15	23	28.2
Banquereau Bank	2	21	7	14	7	2	0	1	0	10	23	33	33.3
Laurentian Fan	2	23	9	14	9	2	2	1	0	14	25	39	33.8
Cabot Strait	1	11	3	8	4	0	0	0	0	4	12	16	29.3
Northumberland Strait	1	12	6	6	0	1	0	0	0	1	13	14	29.4
Gulf-Magdalen	0	12	7	5	1	0	0	0	0	1	12	13	30.3
Chaleur-Miscou	0	3	2	1	1	1	0	0	0	2	3	5	42.9
Anticosti	0	5	3	2	2	0	0	0	0	2	5	7	29.5
Belle Isle	1	3	1	2	0	0	0	0	0	0	4	4	28.6
Northeast Gulf	1	7	2	5	2	0	0	0	0	2	8	10	30.1
Gulf Port-au-Port	0	9	4	5	2	0	0	0	0	2	9	11	29.4
Southwest Coast	0	10	4	6	2	1	0	0	0	3	10	13	33.6
South Coast	0	8	3	5	3	0	0	0	0	3	8	11	34.1
East Coast	0	15	5	10	2	2	1	0	0	5	15	20	33.6
Northeast Coast	0	8	5	3	2	0	0	0	0	2	8	10	30.1
Belle Isle Bank	0	6	3	3	3	0	0	0	0	3	6	9	27.7
Funk Island Bank	0	17	9	8	4	1	0	0	0	5	17	22	32.1
Northern Grand Banks	0	17	5	12	7	2	1	0	0	10	17	27	32.3
Southeastern Grand Banks	3	17	10	7	15	1	0	0	0	16	20	36	30.7
Southwestern Grand Banks	3	28	9	19	15	3	1	1	0	20	31	51	31.1

Map – Maritimes Marine Area Map

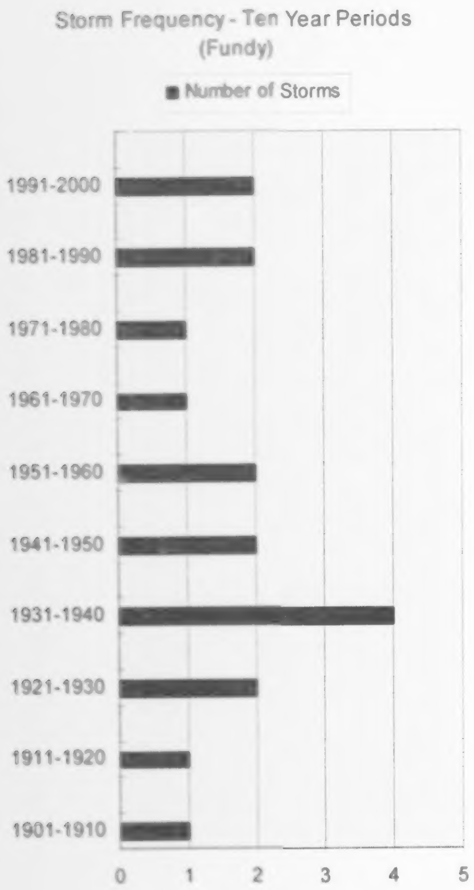

50°N
65°W
19
Anticosti
18
Chaleur-
Miscou
17
Gulf-
Magdalen
18
15 Cabot Strait
15
16
Northumberland
Strait
16
1
Fundy
2
Grand
Manan
13
Banquereau
Bank
45°N
12
Fourchu
1
Eastern
Shore
9
2
South-
western
Shore
6
Sable
10
14
Laurentian
Fan
55°W
3
Lurcher
7
Lahave
Bank
11
60°W
4
East Scotian
Slope
8
West
Scotian
Slope
4
Brown's
Bank
5
5
George's
Bank
40°N

Meteorological Service of Canada - Atlantic
Service Météorologique du Canada - Atlantique

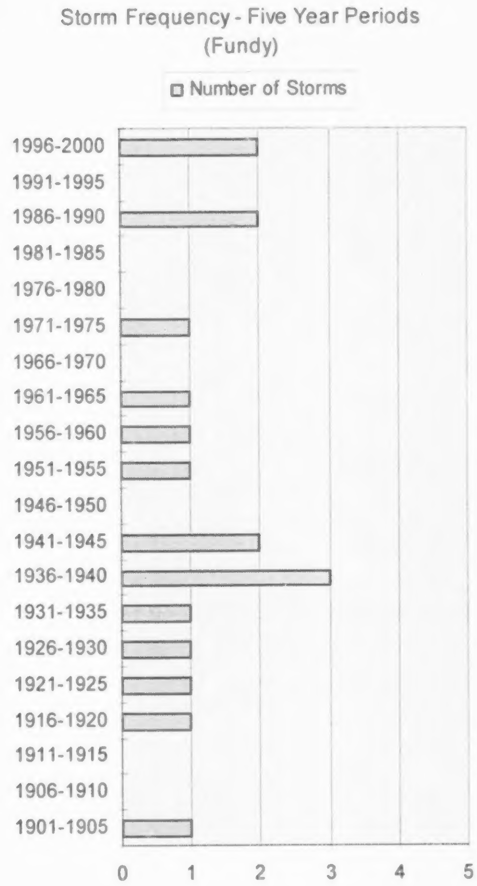
Fundy



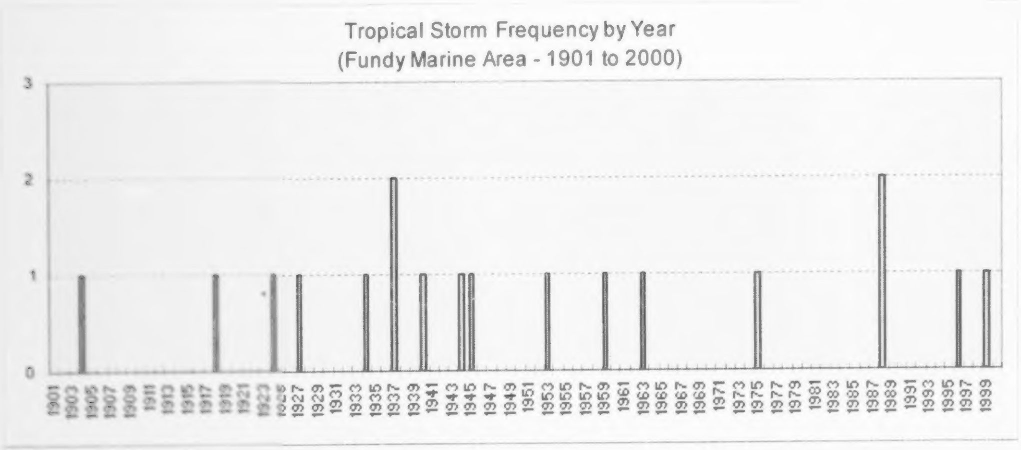
Fundy Marine Area Boundaries:
East of a line along longitude 66°W from the New Brunswick Coast to the Nova Scotia Coast.



Storm Frequency - Ten Year Periods (Fundy)

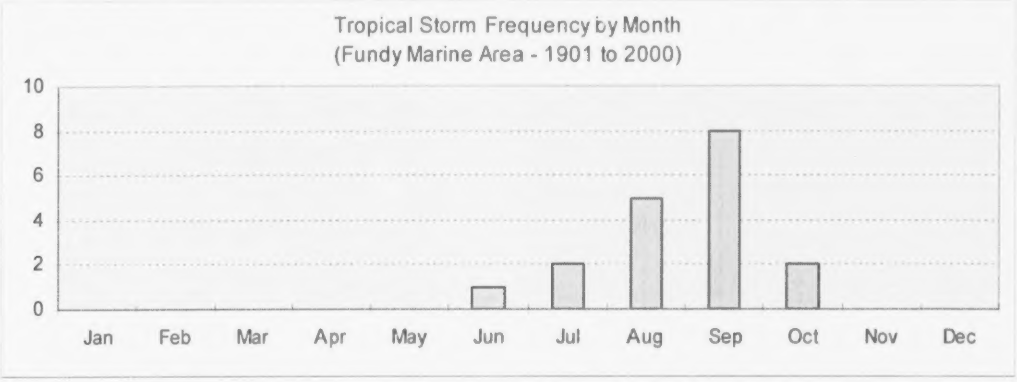


Storm Frequency - Five Year Periods (Fundy)

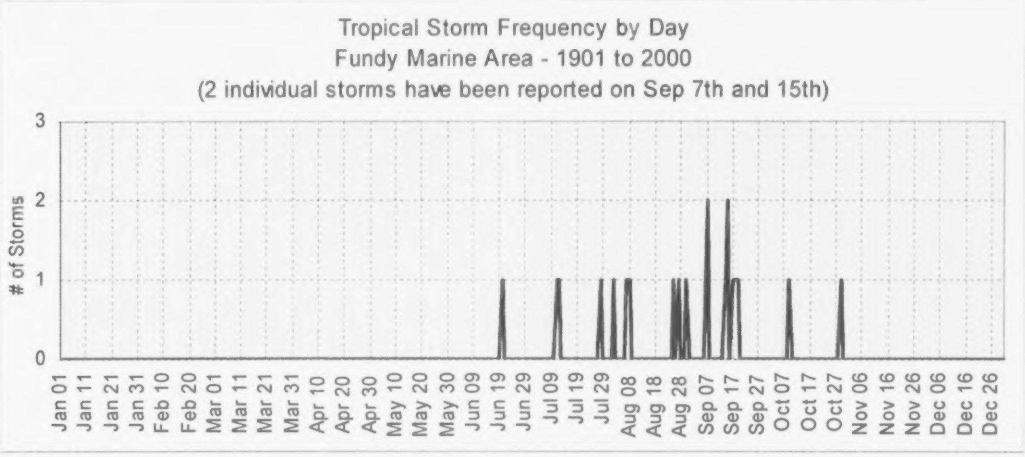


Tropical Storm Frequency by Year (Fundy Marine Area - 1901 to 2000)

Note: Storms that span months were counted in both months



Note: Storms will generally span more than one day. The storm is counted in each day



Fundy – Summary Statistics

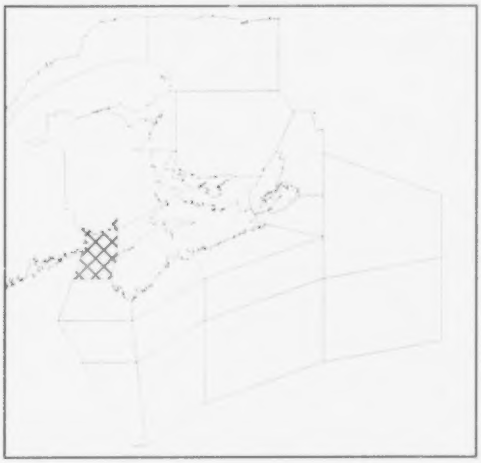
100 Yr	TD	TS	G	S	S1	S2	S3	S4	S5	H	<H	ALL	Sys-Spd
#	2	11	6	5	2	3	0	0	0	5	13	18	32.4
Return	50	9.1	16.7	20	50	33.3	NA	NA	NA	20	7.7	5.6	
50 Yr	**TD**	**TS**	**G**	**S**	**S1**	**S2**	**S3**	**S4**	**S5**	**H**	**<H**	**ALL**	**Sys-Spd**
#	1	5	3	2	1	1	0	0	0	2	6	8	31.1
Return	50	10	16.7	25	50	50	NA	NA	NA	25	8.3	6.3	

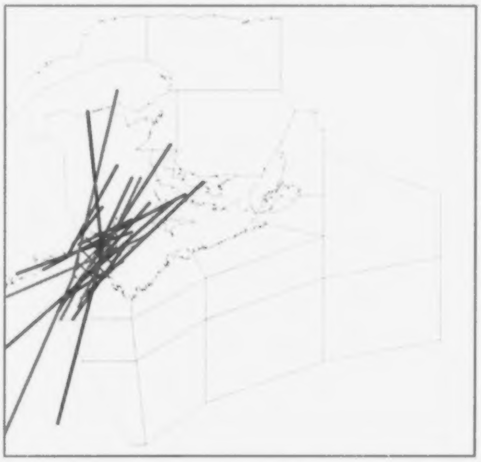
Fundy – Storm Details

Name	Date	Storm #	MaxWind (kts)	SS Scale	AvgSysSpd (kts)	Pres (mb)	Comment	ENSO
Not Named	Sep 15, 1904	2	65	SS1	59.8		E	El Nino
Not Named	Sep 07, 1918	4	50	TS	18.5		E	El Nino
Not Named	Aug 27, 1924	2	85	SS2	40.4		E	La Nina
Not Named	Aug 25, 1927	1	90	SS2	56.5		E	Neutral
Not Named	Jun 20, 1934	2	40	TS	24.1		E	Neutral
Not Named	Aug 02, 1937	1	35	TS	13.9			Neutral

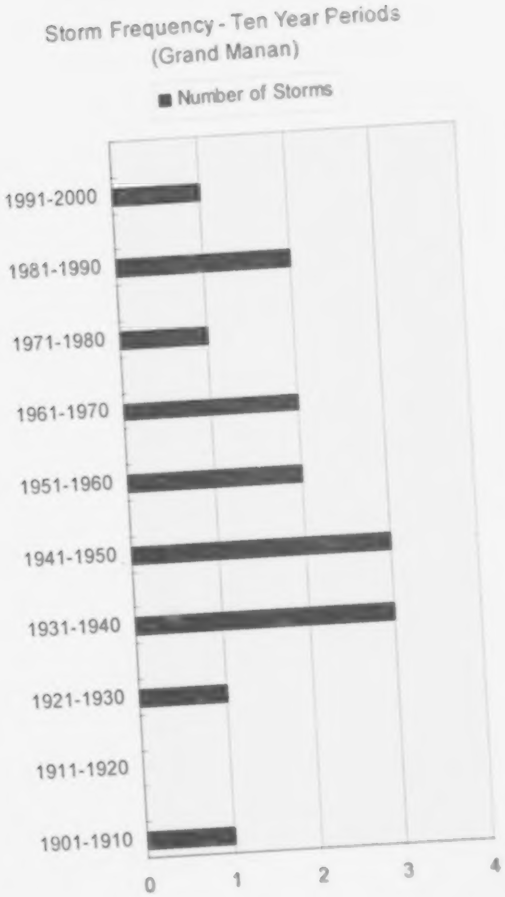
Name	Date	Storm #	MaxWind (kts)	SS Scale	AvgSysSpd (kts)	Pres (mb)	Comment	ENSO
Not Named	Sep 14, 1937	4	55	TS	29.0			Neutral
Not Named	Sep 17, 1940	5	55	TS	22.0			El Nino
Not Named	Sep 15, 1944	7	35	TS	38.4		E	La Nina
Not Named	Sep 19, 1945	9	25	TD	32.2		E	Neutral
Carol	Sep 07, 1953	4	65	SS1	34.4			Neutral
Cindy	Jul 11, 1959	4	50	TS	30.0		E	Neutral
Ginny	Oct 29, 1963	8	90	SS2	33.1		E	El Nino
Blanche	Jul 28, 1975	2	60	TS	37.5	988	E	La Nina
Alberto	Aug 07, 1988	1	35	TS	25.6	1002		La Nina
Chris	Aug 30, 1988	3	25	TD	38.1	1008		La Nina
Josephine	Oct 09, 1996	10	45	TS	29.0	984	E	Neutral
Floyd	Sep 18, 1999	6	35	TS	21.1	990	E	La Nina

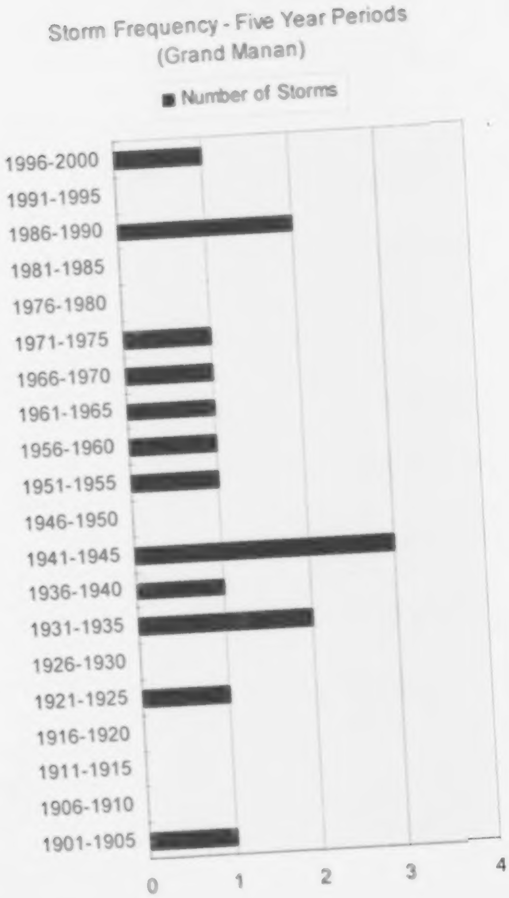
Grand Manan

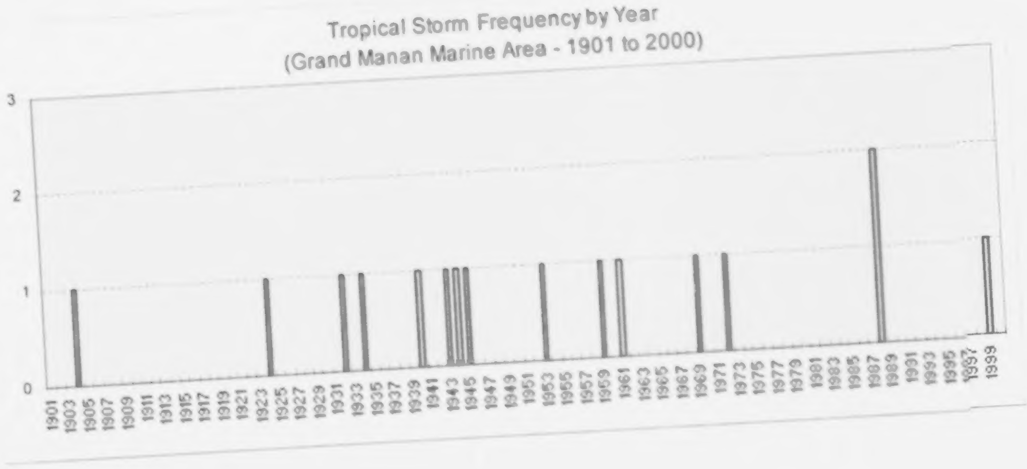




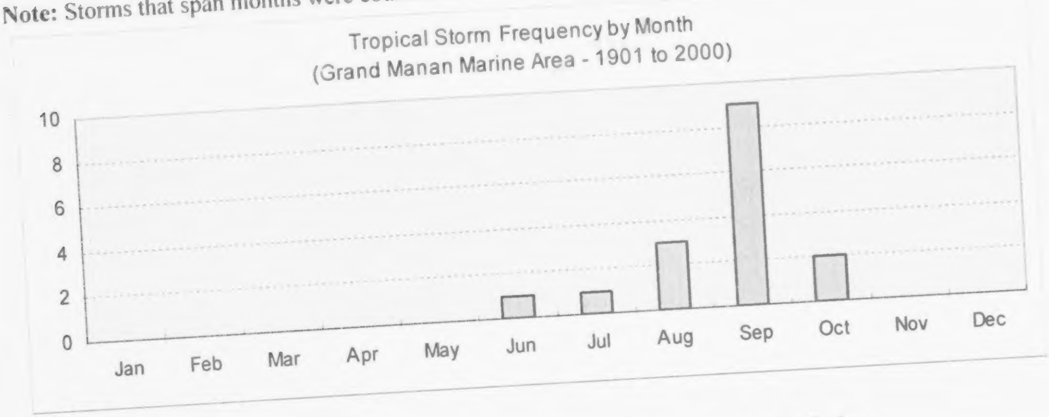
Grand Manan Marine Area Boundaries:
Intersection of latitude 44°N and west coast of Nova Scotia then along 44°N to 44°N 67.5°W, then to intersection of longitude 67°W and south coast of New Brunswick, then along the Fundy shore of New Brunswick to longitude 66°W, then south along 66°W to the Nova Scotia coast then southwest along the Nova Scotia coast to latitude 44°N.


Storm Frequency - Ten Year Periods
(Grand Manan)

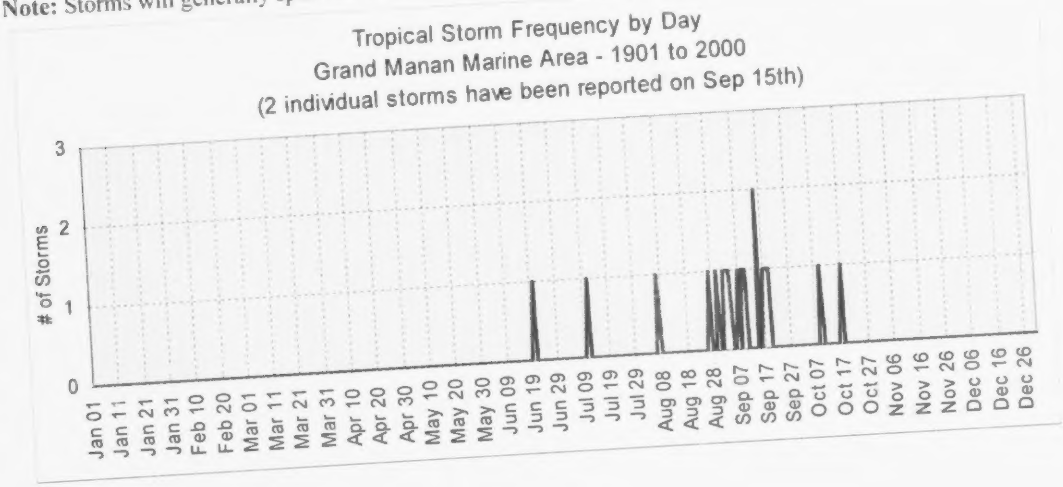

Storm Frequency - Five Year Periods
(Grand Manan)


Tropical Storm Frequency by Year
(Grand Manan Marine Area - 1901 to 2000)

Note: Storms that span months were counted in both months



Note: Storms will generally span more than one day. The storm is counted in each day



Grand Manan – Summary Statistics

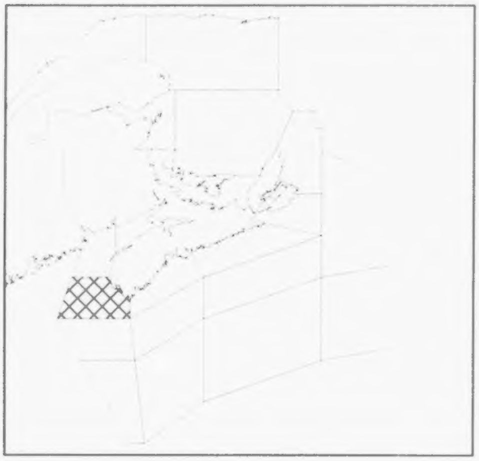
100 Yr	TD	TS	G	S	S1	S2	S3	S4	S5	H	<H	ALL	Sys-Spd
#	2	9	7	2	3	1	1	0	0	5	11	16	30.6
Return	50	11.1	14.3	50	33.3	100	100	NA	NA	20	9.1	6.3	
50 Yr	**TD**	**TS**	**G**	**S**	**S1**	**S2**	**S3**	**S4**	**S5**	**H**	**<H**	**ALL**	**Sys-Spd**
#	1	5	3	2	1	0	1	0	0	2	6	8	26.8
Return	50	10	16.7	25	50	NA	50	NA	NA	25	8.3	6.3	

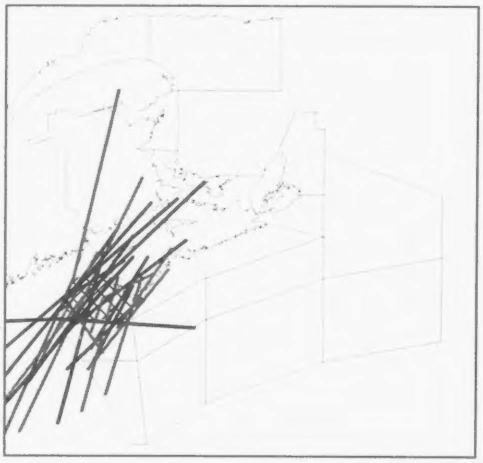
Grand Manan – Storm Details

Name	Date	Storm #	MaxWind (kts)	SS Scale	AvgSysSpd (kts)	Pres (mb)	Comment	ENSO
Not Named	Sep 15, 1904	2	65	SS1	59.8		E	El Nino
Not Named	Aug 27, 1924	2	85	SS2	40.4		E	La Nina
Not Named	Sep 17, 1932	5	35	TS	25.0		E	Neutral
Not Named	Jun 20, 1934	2	40	TS	24.1		E	Neutral
Not Named	Sep 02, 1940	4	65	SS1	19.0			El Nino

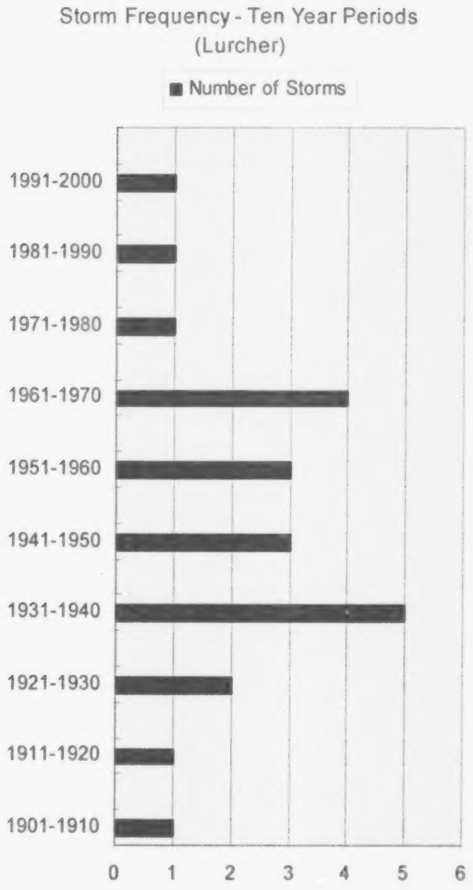
Name	Date	Storm #	MaxWind (kts)	SS Scale	AvgSysSpd (kts)	Pres (mb)	Comment	ENSO
Not Named	Oct 17, 1943	9	40	TS	38.3		E	Neutral
Not Named	Sep 15, 1944	7	35	TS	38.4		E	La Nina
Not Named	Sep 19, 1945	9	25	TD	29.5		E	Neutral
Carol	Sep 07, 1953	4	65	SS1	34.4			Neutral
Cindy	Jul 11, 1959	4	50	TS	30.4		E	Neutral
Frances	Oct 09, 1961	7	40	TS	17.0		E	Neutral
Gerda	Sep 09, 1969	7	110	SS3	44.6	979		El Nino
Carrie	Sep 04, 1972	4	50	TS	11.4		E	El Nino
Alberto	Aug 07, 1988	1	35	TS	24.7	1002		La Nina
Chris	Aug 30, 1988	3	20	TD	38.2	1008		La Nina
Floyd	Sep 18, 1999	6	40	TS	14.1	987	E	La Nina

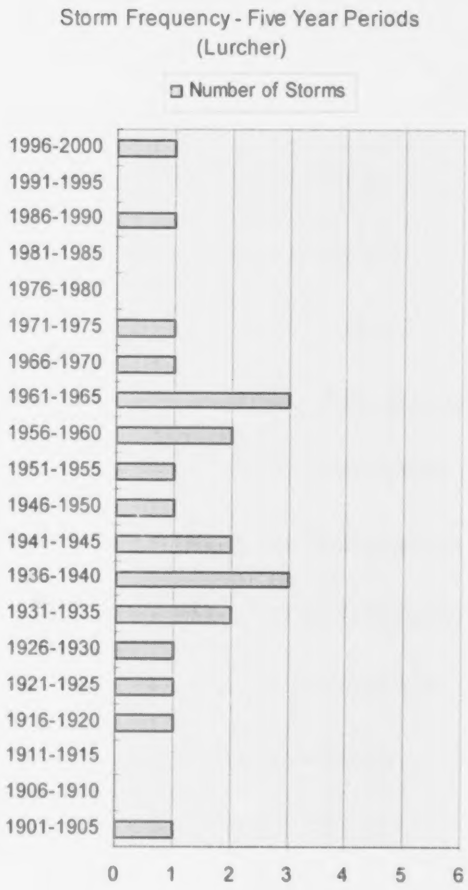
Lurcher

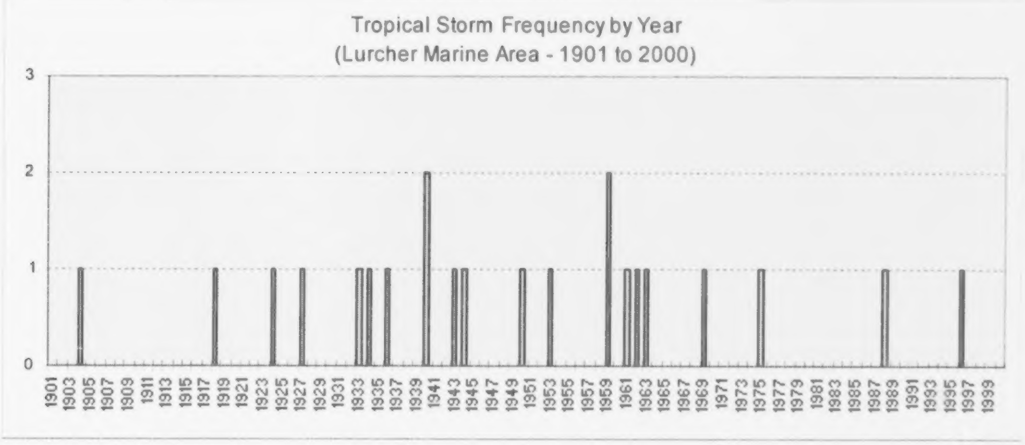




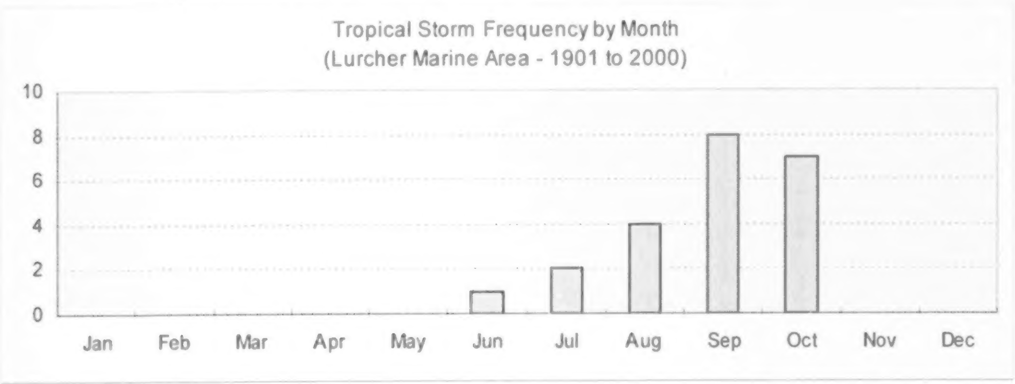
Lurcher Marine Area Boundaries:
From 43°N 65.5°W westward to 43°N 68°W then northeastward to 44°N 67.5°W then eastward to the coast of Nova Scotia, then southeastward along the Nova Scotia coast to longitude 65.5°W then south to 43°W 65.5°W.


Storm Frequency - Ten Year Periods (Lurcher)

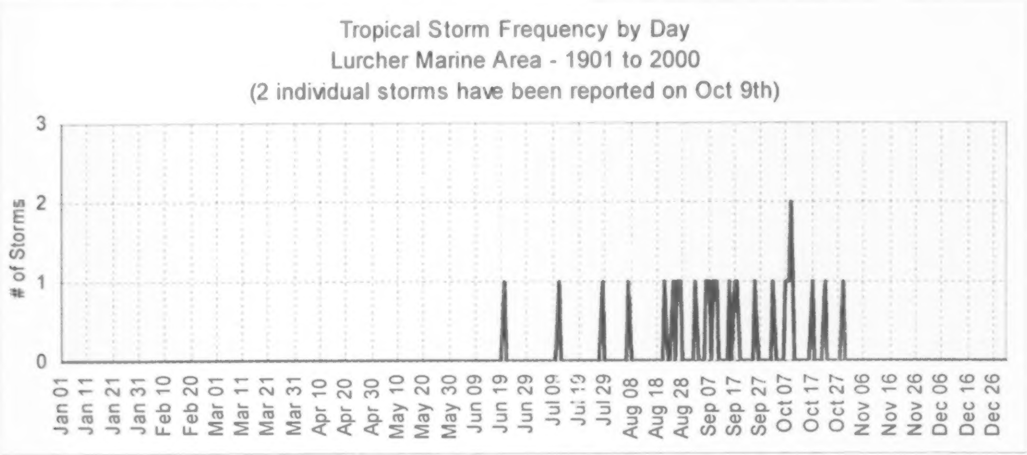

Storm Frequency - Five Year Periods (Lurcher)


Tropical Storm Frequency by Year (Lurcher Marine Area - 1901 to 2000)

Note: Storms that span months were counted in both months



Note: Storms will generally span more than one day. The storm is counted in each day



Lurcher – Summary Statistics

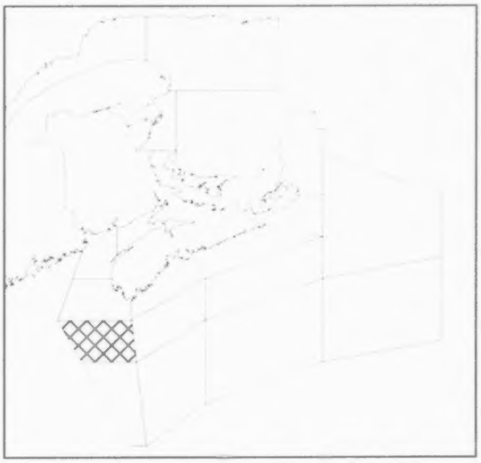
100 Yr	**TD**	**TS**	**G**	**S**	**S1**	**S2**	**S3**	**S4**	**S5**	**H**	**<H**	**ALL**	**Sys-Spd**
#	1	7	5	2	10	3	1	0	0	14	8	22	30.1
Return	100	14.3	20	50	10	33.3	100	NA	NA	7.1	12.5	4.5	
50 Yr	**TD**	**TS**	**G**	**S**	**S1**	**S2**	**S3**	**S4**	**S5**	**H**	**<H**	**ALL**	**Sys-Spd**
#	1	3	2	1	4	1	1	0	0	6	4	10	27.2
Return	50	16.7	25	50	12.5	50	50	NA	NA	8.3	12.5	5	

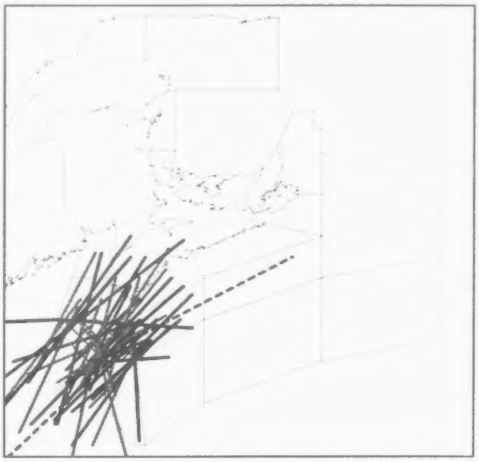
Lurcher – Storm Details

Name	**Date**	**Storm #**	**MaxWind (kts)**	**SS Scale**	**AvgSysSpd (kts)**	**Pres (mb)**	**Comment**	**ENSO**
Not Named	Sep 15, 1904	2	65	SS1	59.8		E	El Nino
Not Named	Sep 06, 1918	4	55	TS	20.4			El Nino
Not Named	Aug 26, 1924	2	90	SS2	38.7			La Nina
Not Named	Aug 24, 1927	1	90	SS2	49.7		E	Neutral
Not Named	Sep 18, 1933	13	65	SS1	25.1		E	Neutral

Name	Date	Storm #	MaxWind (kts)	SS Scale	AvgSysSpd (kts)	Pres (mb)	Comment	ENSO
Not Named	Jun 20, 1934	2	40	TS	24.6		E	Neutral
Not Named	Sep 25, 1936	15	75	SS1	26.0		E	Neutral
Not Named	Sep 02, 1940	4	70	SS1	16.4			El Nino
Not Named	Sep 17, 1940	5	65	SS1	23.0			El Nino
Not Named	Oct 17, 1943	9	40	TS	42.5		E	Neutral
Not Named	Oct 22, 1944	11	45	TS	33.3		E	La Nina
Able	Aug 21, 1950	1	65	SS1	31.1			Neutral
Carol	Sep 07, 1953	4	70	SS1	34.0			Neutral
Cindy	Jul 11, 1959	4	50	TS	30.2			Neutral
Gracie	Oct 02, 1959	8	25	TD	30.1		E	Neutral
Frances	Oct 09, 1961	7	65	SS1	11.1			Neutral
Daisy	Oct 07, 1962	4	65	SS1	11.1			Neutral
Ginny	Oct 29, 1963	8	95	SS2	33.2	958		El Nino
Gerda	Sep 09, 1969	7	110	SS3	44.6	979		El Nino
Blanche	Jul 28, 1975	2	70	SS1	29.4	980		La Nina
Alberto	Aug 07, 1988	1	35	TS	21.7	1002		La Nina
Josephine	Oct 09, 1996	10	45	TS	27.0	980	E	Neutral

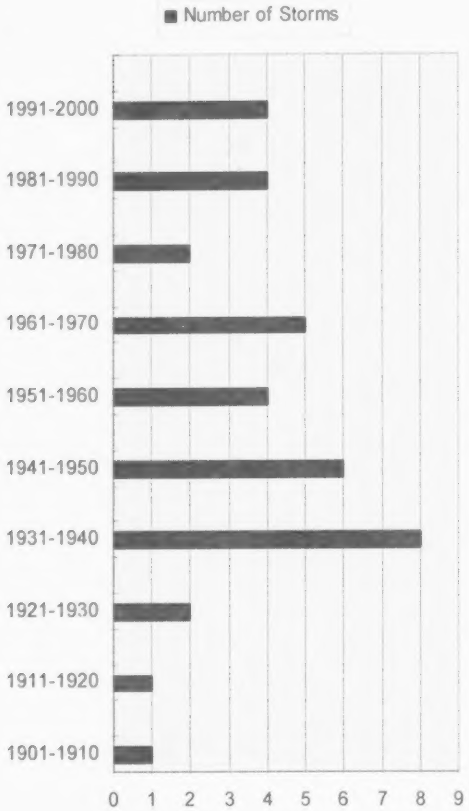
Brown's Bank



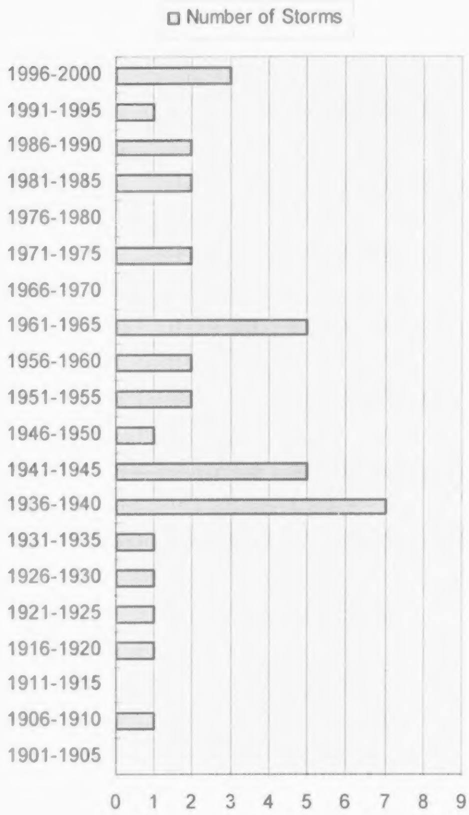


Brown's Bank Marine Area Boundaries:
From 43°N 65.5°W westward long 43°N to 43°N 68°W then southeastward along a line joining 43°N 68°W and 40°N 65.5°W until latitude 42°N then eastward along 42°N to intersect a line joining 43°N 65.5°W and 40°N 65°W then north to 43°N 65.5°W.

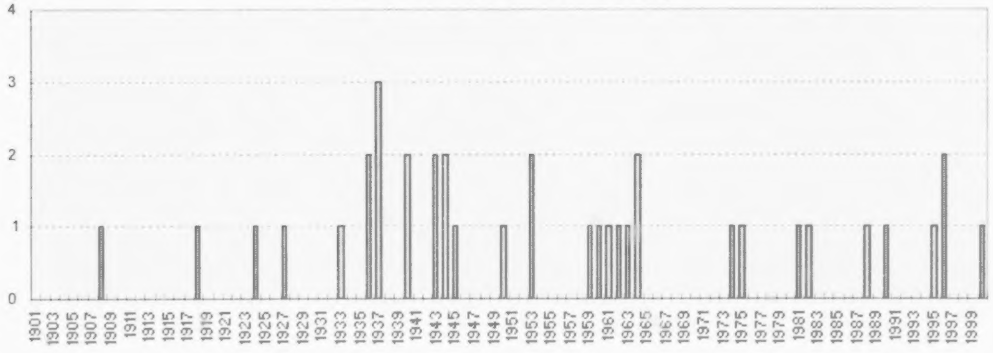
Storm Frequency - Ten Year Periods
(Brown's Bank)



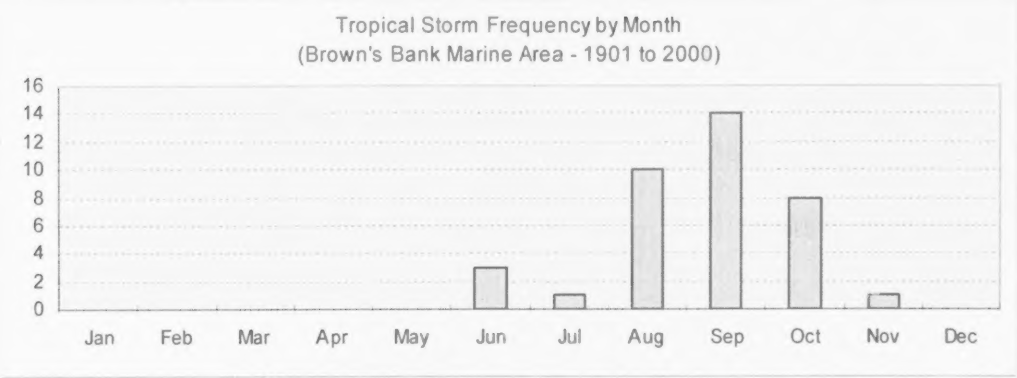
Storm Frequency - Five Year Periods
(Brown's Bank)



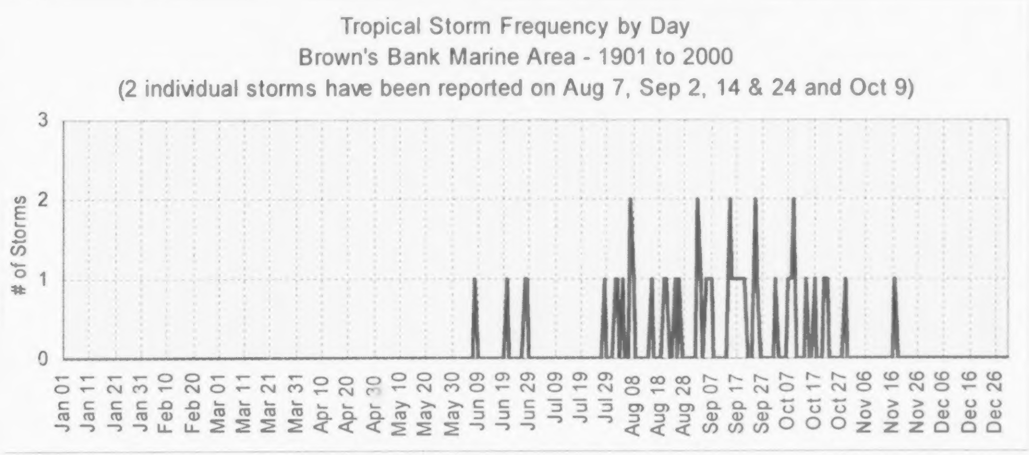
Tropical Storm Frequency by Year
(Brown's Bank Area - 1901 to 2000)



Note: Storms that span months were counted in both months



Note: Storms will generally span more than one day. The storm is counted in each day



Brown's Bank – Summary Statistics

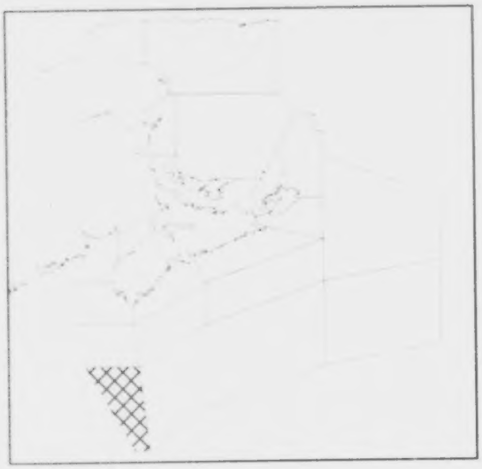
100 Yr	**TD**	**TS**	**G**	**S**	**S1**	**S2**	**S3**	**S4**	**S5**	**H**	**<H**	**ALL**	**Sys-Spd**
#	3	15	7	8	15	4	0	0	0	19	18	37	25.7
Return	33.3	6.7	14.3	12.5	6.7	25	NA	NA	NA	5.3	5.6	2.7	
50 Yr	**TD**	**TS**	**G**	**S**	**S1**	**S2**	**S3**	**S4**	**S5**	**H**	**<H**	**ALL**	**Sys-Spd**
#	2	8	3	5	8	1	0	0	0	9	10	19	25.9
Return	25	6.3	16.7	10	6.3	50	NA	NA	NA	5.6	5	2.6	

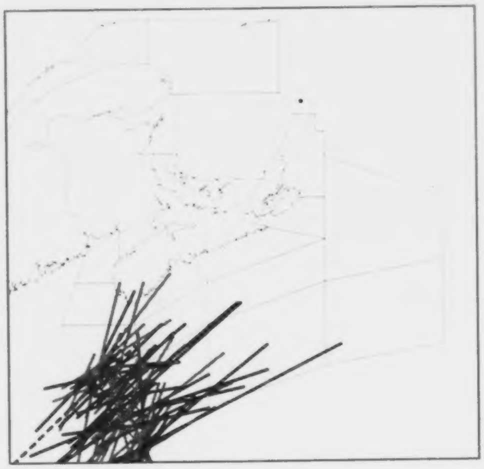
Brown's Bank – Storm Details

Name	**Date**	**Storm #**	**MaxWind (kts)**	**SS Scale**	**AvgSysSpd (kts)**	**Pres (mb)**	**Comment**	**ENSO**
Not Named	Aug 02, 1908	2	85	SS2	22.0			La Nina
Not Named	Sep 06, 1918	4	65	SS1	22.0			El Nino
Not Named	Aug 26, 1924	2	90	SS2	37.0			La Nina
Not Named	Aug 24, 1927	1	90	SS2	49.7		E	Neutral
Not Named	Sep 18, 1933	13	65	SS1	25.1		E	Neutral

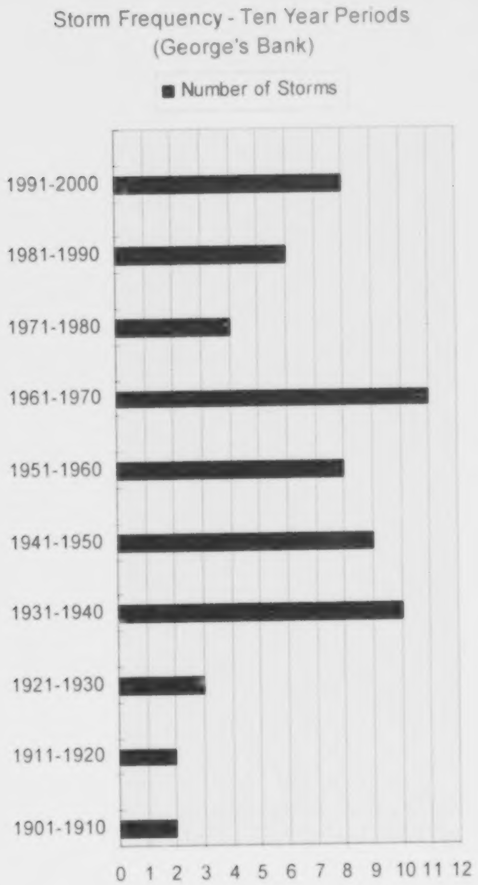
Name	Date	Storm #	MaxWind (kts)	SS Scale	AvgSysSpd (kts)	Pres (mb)	Comment	ENSO
Not Named	Sep 19, 1936	13	80	SS1	31.3			Neutral
Not Named	Sep 24, 1936	15	75	SS1	23.0			Neutral
Not Named	Aug 01, 1937	1	50	TS	20.5			Neutral
Not Named	Aug 07, 1937	2	45	TS	10.5			Neutral
Not Named	Sep 14, 1937	4	60	TS	27.1			Neutral
Not Named	Sep 02, 1940	4	70	SS1	16.4			El Nino
Not Named	Sep 16, 1940	5	70	SS1	19.7			El Nino
Not Named	Sep 15, 1943	5	40	TS	25.0		E	Neutral
Not Named	Oct 17, 1943	9	40	TS	42.5		E	Neutral
Not Named	Aug 04, 1944	3	30	TD	9.1			La Nina
Not Named	Oct 21, 1944	11	45	TS	32.2		E	La Nina
Not Named	Jun 27, 1945	1	55	TS	13.6			Neutral
Able	Aug 21, 1950	1	65	SS1	31.1			Neutral
Barbara	Aug 15, 1953	2	75	SS1	31.7			Neutral
Carol	Sep 07, 1953	4	70	SS1	33.5			Neutral
Gracie	Oct 02, 1959	8	25	TD	30.1		E	Neutral
Cleo	Aug 20, 1960	4	80	SS1	22.3			Neutral
Frances	Oct 08, 1961	7	70	SS1	10.9			Neutral
Daisy	Oct 07, 1962	4	70	SS1	15.4	975		Neutral
Ginny	Oct 29, 1963	8	95	SS2	33.2	958		El Nino
Dora	Sep 14, 1964	6	55	TS	35.5		E	La Nina
Gladys	Sep 24, 1964	9	65	SS1	27.7	982		La Nina
Dolly	Sep 05, 1974	7	40	TS	35.3			Neutral
Blanche	Jul 28, 1975	2	70	SS1	29.4	980		La Nina
Subtrop 3	Nov 17, 1981	12	50	TS	17.8	985	S	Neutral
Subtrop 1	Jun 20, 1982	2	60	TS	44.9	992	S	El Nino
Alberto	Aug 07, 1988	1	35	TS	21.7	1002		La Nina
Lili	Oct 14, 1990	12	50	TS	30.5	995		Neutral
Allison	Jun 08, 1995	1	50	TS	20.4	982	E	Neutral
Edouard	Sep 02, 1996	5	65	SS1	7.4	972		Neutral
Josephine	Oct 09, 1996	10	45	TS	27.0	980	E	Neutral
Gordon	Sep 20, 2000	7	30	TD	17.3	1005	E	La Nina

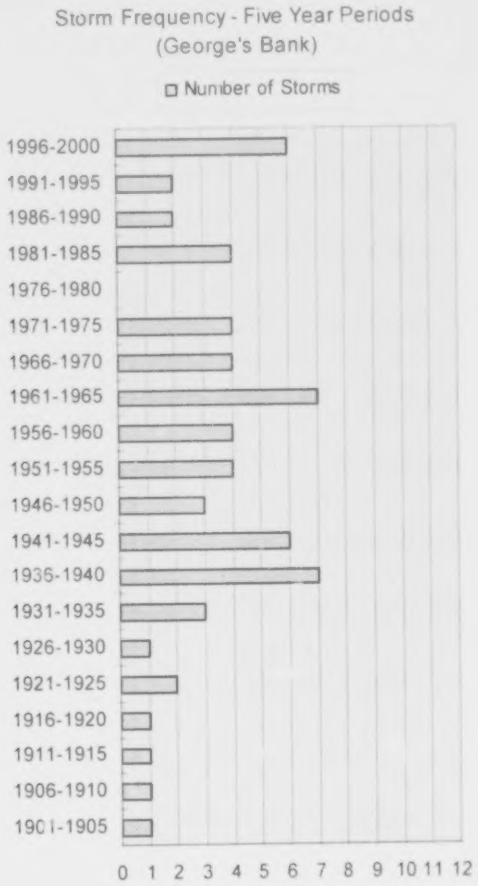
George's Bank

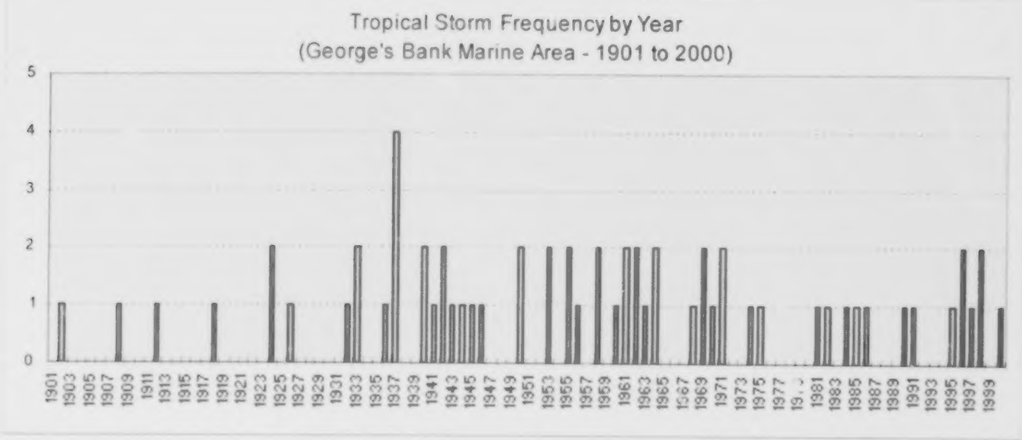




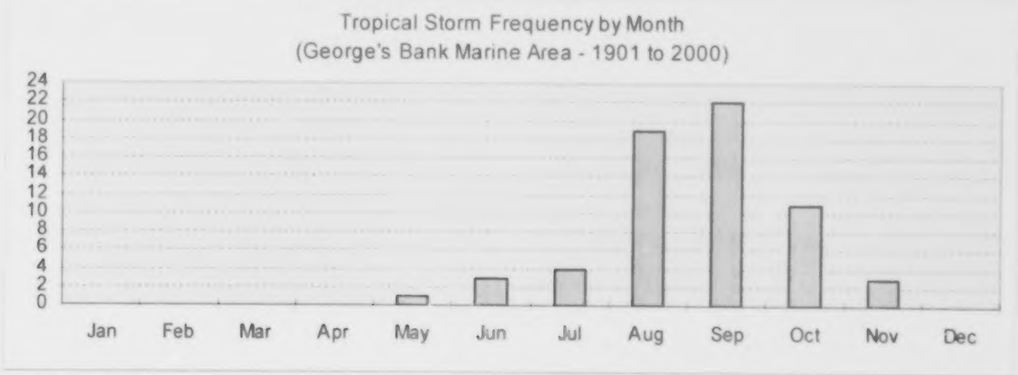
George's Bank Marine Area Boundaries:
40°N 65.5°W, then northwestward along a line joining 40°N 65.5°W and 43°N 68°W as far as latitude 42°N, then eastward along latitude 42°N, to intersect a line joining 43°N 65.5°W and 40°N 65°W, then southeastward along that line to 40°N 65°W, then westward along latitude 40°N to 40°N 65.5°W.



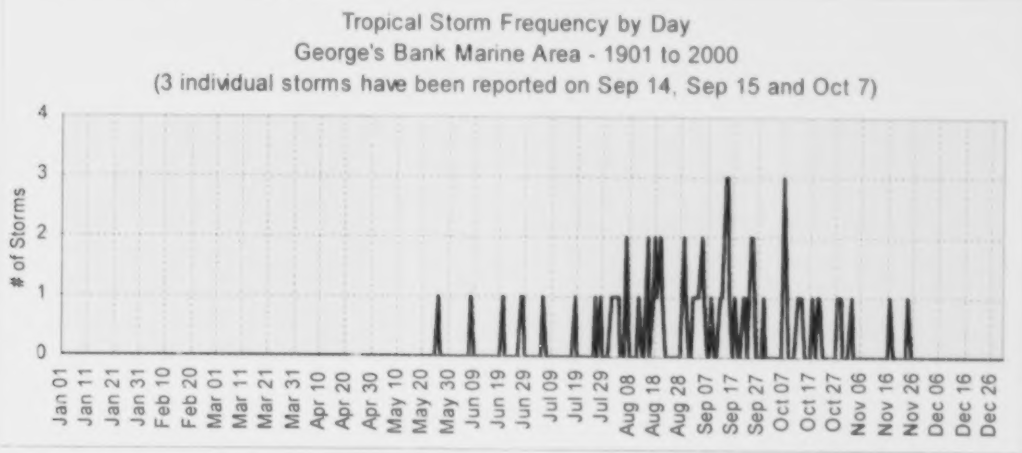



Tropical Storm Frequency by Year
(George's Bank Marine Area - 1901 to 2000)

Note: Storms that span months were counted in both months


Tropical Storm Frequency by Month
(George's Bank Marine Area - 1901 to 2000)

Note: Storms will generally span more than one day. The storm is counted in each day


Tropical Storm Frequency by Day
George's Bank Marine Area - 1901 to 2000
(3 individual storms have been reported on Sep 14, Sep 15 and Oct 7)

George's Bank – Summary Statistics

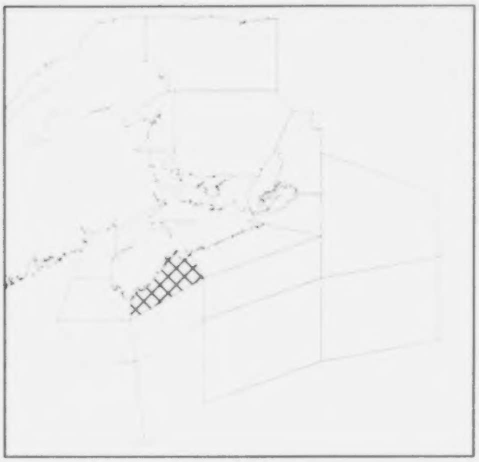
100 Yr	**TD**	**TS**	**G**	**S**	**S1**	**S2**	**S3**	**S4**	**S5**	**H**	**<H**	**ALL**	**Sys-Spd**
#	1	34	17	17	21	5	2	0	0	28	35	63	25.4
Return	100	2.9	5.9	5.9	4.8	20	50	NA	NA	3.6	2.9	1.6	
50 Yr	**TD**	**TS**	**G**	**S**	**S1**	**S2**	**S3**	**S4**	**S5**	**H**	**<H**	**ALL**	**Sys-Spd**
#	1	20	7	13	12	3	1	0	0	16	21	37	27.6
Return	50	2.5	7.1	3.8	4.2	16.7	50	NA	NA	3.1	2.4	1.4	

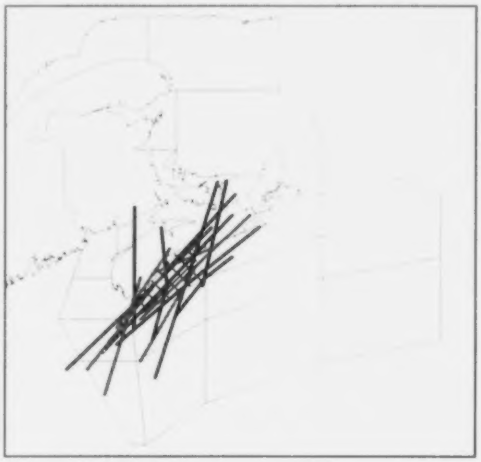
George's Bank – Storm Details

Name	Date	Storm #	MaxWind (kts)	SS Scale	AvgSysSpd (kts)	Pres (mb)	Comment	ENSO
Not Named	Oct 12, 1902	4	35	TS	32.2		E	El Nino
Not Named	Aug 02, 1908	2	85	SS2	22.0			La Nina
Not Named	Nov 24, 1912	6	65	SS1	34.3			Neutral
Not Named	Sep 06, 1918	4	65	SS1	22.0			El Nino
Not Named	Sep 04, 1924	3	75	SS1	23.9		E	La Nina
Not Named	Sep 18, 1924	4	40	TS	33.8		E	La Nina
Not Named	Aug 07, 1926	2	80	SS1	21.7			Neutral
Not Named	Sep 09, 1932	4	90	SS2	18.7			Neutral
Not Named	Oct 07, 1933	18	100	SS3	24.0			Neutral
Not Named	Oct 28, 1933	20	60	TS	26.1			Neutral
Not Named	Sep 24, 1936	15	75	SS1	20.1			Neutral
Not Named	Aug 01, 1937	1	50	TS	20.5			Neutral
Not Named	Aug 07, 1937	2	45	TS	10.8			Neutral
Not Named	Sep 13, 1937	4	70	SS1	27.2			Neutral
Not Named	Sep 29, 1937	8	35	TS	22.3		E	Neutral
Not Named	May 26, 1940	1	35	TS	8.8			El Nino
Not Named	Sep 16, 1940	5	70	SS1	16.4			El Nino
Not Named	Sep 25, 1941	3	35	TS	19.4			Neutral
Not Named	Sep 22, 1942	5	35	TS	17.3		E	La Nina
Not Named	Oct 18, 1942	9	35	TS	37.9			La Nina
Not Named	Sep 15, 1943	5	40	TS	24.8		E	Neutral
Not Named	Aug 04, 1944	3	35	TS	10.6			La Nina
Not Named	Jun 27, 1945	1	55	TS	13.6			Neutral
Not Named	Sep 15, 1946	4	70	SS1	23.6			Neutral
Able	Aug 21, 1950	1	65	SS1	31.1			Neutral
Dog	Sep 12, 1950	4	60	TS	14.7		E	Neutral
Barbara	Aug 15, 1953	2	75	SS1	31.7			Neutral
Not Named	Oct 07, 1953	10	60	TS	20.6		E	Neutral
Diane	Aug 20, 1955	3	35	TS	17.5			La Nina
Ione	Sep 21, 1955	9	75	SS1	49.5			La Nina
Betsy	Aug 18, 1956	3	65	SS1	18.4			La Nina
Becky	Aug 17, 1958	2	25	TD	38.8		E	Neutral
Daisy	Aug 29, 1958	4	90	SS2	26.0	982		Neutral
Cleo	Aug 20, 1960	4	80	SS1	24.4			Neutral
Frances	Oct 08, 1961	7	100	SS3	11.0			Neutral
Gerda	Oct 20, 1961	8	60	TS	15.2			Neutral
Alma	Aug 30, 1962	1	45	TS	10.8			Neutral
Daisy	Oct 07, 1962	4	70	SS1	32.3	975		Neutral
Ginny	Oct 29, 1963	8	95	SS2	33.2	958		El Nino
Dora	Sep 14, 1964	6	55	TS	35.5		E	La Nina
Gladys	Sep 24, 1964	9	65	SS1	27.7	982		La Nina
Gladys	Oct 21, 1968	8	65	SS1	33.6			Neutral
Anna	Aug 03, 1969	1	55	TS	32.3	1002		El Nino

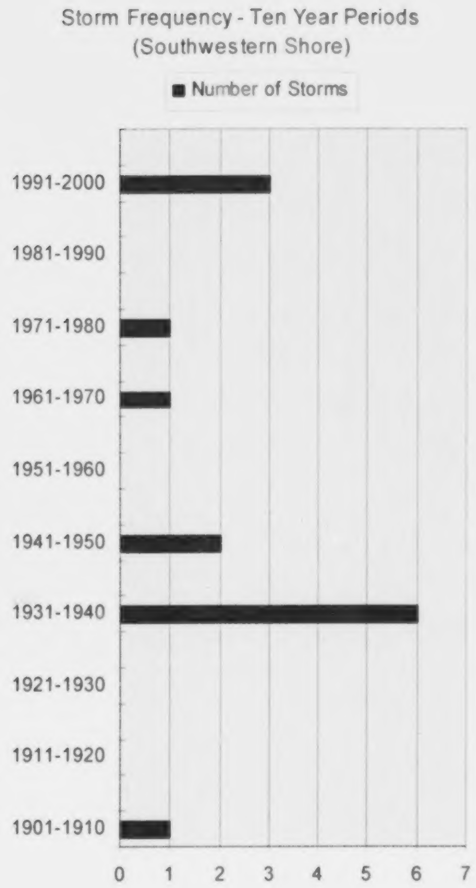
Name	Date	Storm #	MaxWind (kts)	SS Scale	AvgSysSpd (kts)	Pres (mb)	Comment	ENSO
Blanche	Aug 12, 1969	2	75	SS1	38.6			El Nino
Not Named	Aug 18, 1970	4	55	TS	43.5	992		La Nina
Arlene	Jul 06, 1971	1	55	TS	22.9	1000		La Nina
Beth	Aug 15, 1971	3	75	SS1	15.4	977		La Nina
Dolly	Sep 05, 1974	7	40	TS	35.3			Neutral
Blanche	Jul 28, 1975	2	75	SS1	24.7	980		La Nina
Subtrop 3	Nov 17, 1981	12	50	TS	17.8	985	S	Neutral
Subtrop 1	Jun 20, 1982	2	60	TS	45.3	992	S	El Nino
Diana	Sep 15, 1984	5	60	TS	40.4	992		Neutral
Ana	Jul 18, 1985	1	45	TS	20.5	1004		Neutral
Charley	Aug 19, 1986	3	45	TS	13.5	1000		El Nino
Lili	Oct 14, 1990	12	50	TS	30.5	995		Neutral
Unnamed	Nov 02, 1991	8	65	SS1	22.3	981		El Nino
Allison	Jun 08, 1995	1	50	TS	18.9	982	E	Neutral
Edouard	Sep 02, 1996	5	65	SS1	7.1	972		Neutral
Hortense	Sep 14, 1996	8	85	SS2	37.9	960		Neutral
Danny	Jul 26, 1997	5	45	TS	19.3	998	E	El Nino
Bonnie	Aug 29, 1998	2	45	TS	26.7	999		La Nina
Earl	Sep 05, 1998	5	50	TS	44.7	1000	E	La Nina
Helene	Sep 25, 2000	8	55	TS	37.9	993		La Nina

Southwestern Shore

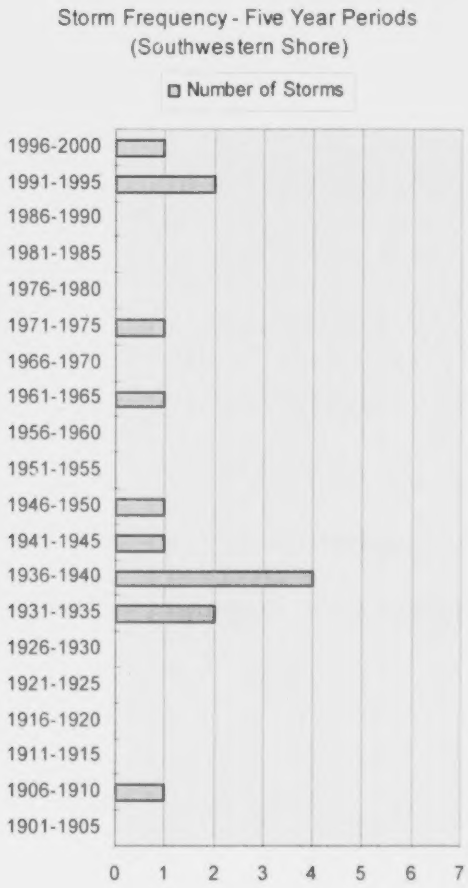




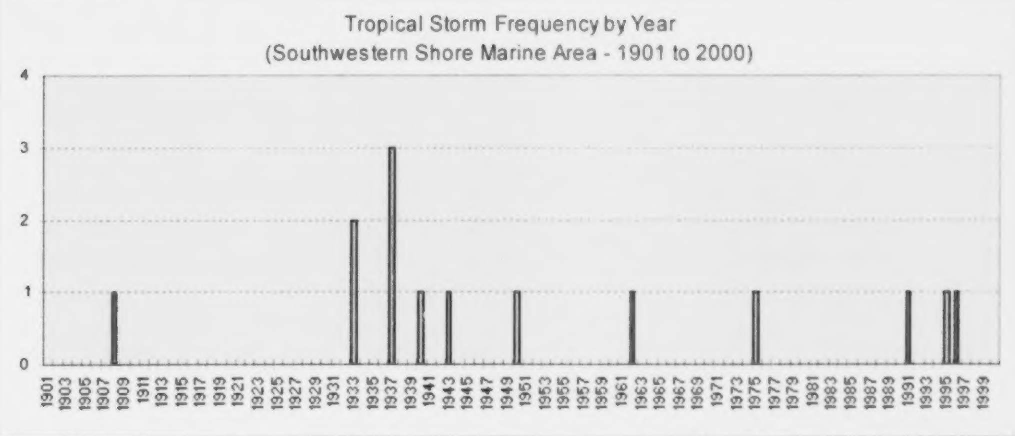
Southwestern Shore Marine Area Boundaries:
44°N 63°W to 43°N 65.5°W, then due north along 65.5°W to the Nova Scotia coast, then northeast along the Nova Scotia coast to Halifax Harbour, then southeastward to 44°N 63°W.



Storm Frequency - Ten Year Periods
(Southwestern Shore)

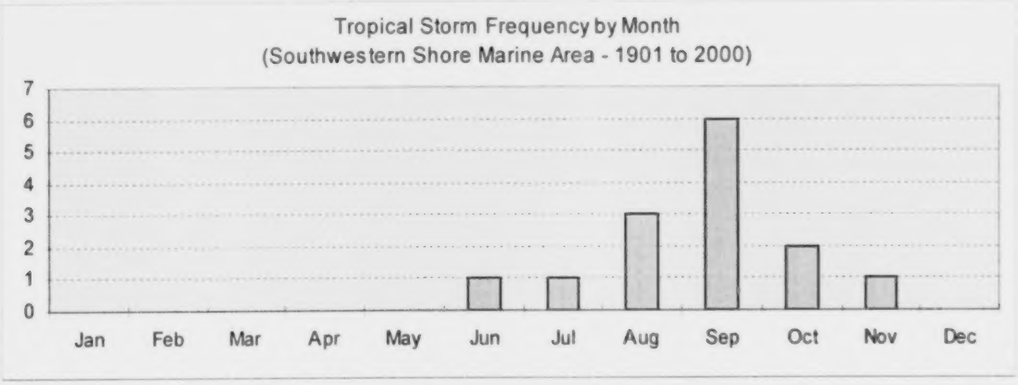


Storm Frequency - Five Year Periods
(Southwestern Shore)

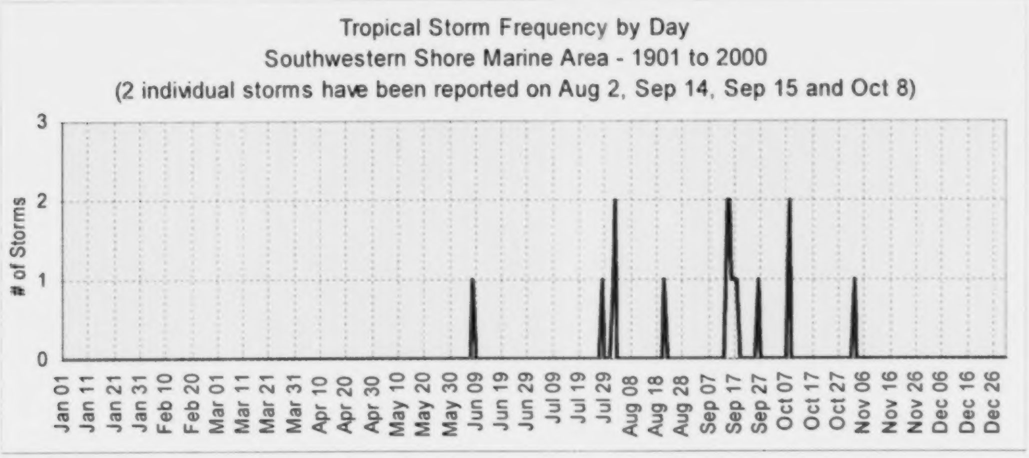


Tropical Storm Frequency by Year
(Southwestern Shore Marine Area - 1901 to 2000)

Note: Storms that span months were counted in both months



Note: Storms will generally span more than one day. The storm is counted in each day



Southwestern Shore – Summary Statistics

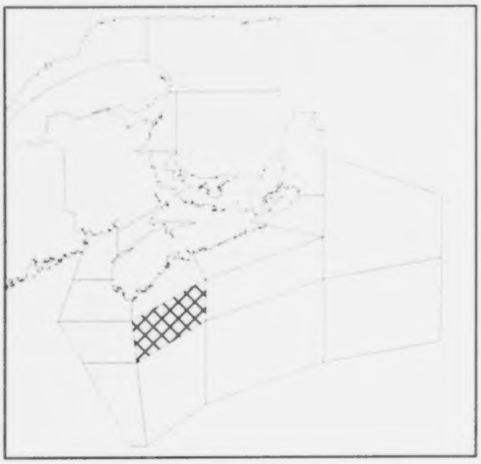
100 Yr	TD	TS	G	S	S1	S2	S3	S4	S5	H	<H	ALL	Sys-Spd
#	0	5	2	3	7	2	0	0	0	9	5	14	22.3
Return	NA	20	50	33.3	14.3	50	NA	NA	NA	11.1	20	7.1	
50 Yr	**TD**	**TS**	**G**	**S**	**S1**	**S2**	**S3**	**S4**	**S5**	**H**	**<H**	**ALL**	**Sys-Spd**
#	0	2	0	2	3	0	0	0	0	3	2	5	22.8
Return	NA	25	NA	25	16.7	NA	NA	NA	NA	16.7	25	10	

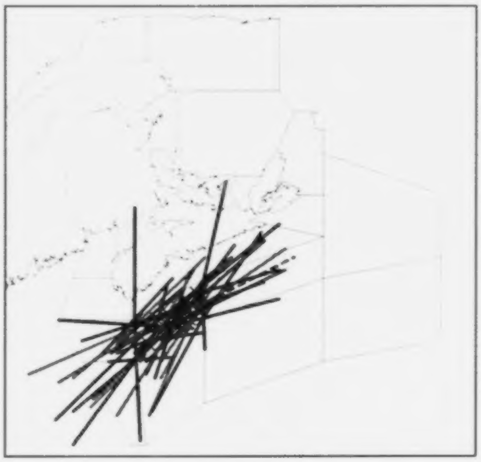
Southwestern Shore – Storm Details

Name	Date	Storm #	MaxWind (kts)	SS Scale	AvgSysSpd (kts)	Pres (mb)	Comment	ENSO
Not Named	Aug 02, 1908	2	85	SS2	21.9			La Nina
Not Named	Sep 18, 1933	13	65	SS1	24.7		E	Neutral
Not Named	Oct 08, 1933	18	85	SS2	9.9		E	Neutral
Not Named	Aug 01, 1937	1	45	TS	13.8			Neutral
Not Named	Sep 14, 1937	4	55	TS	29.0			Neutral

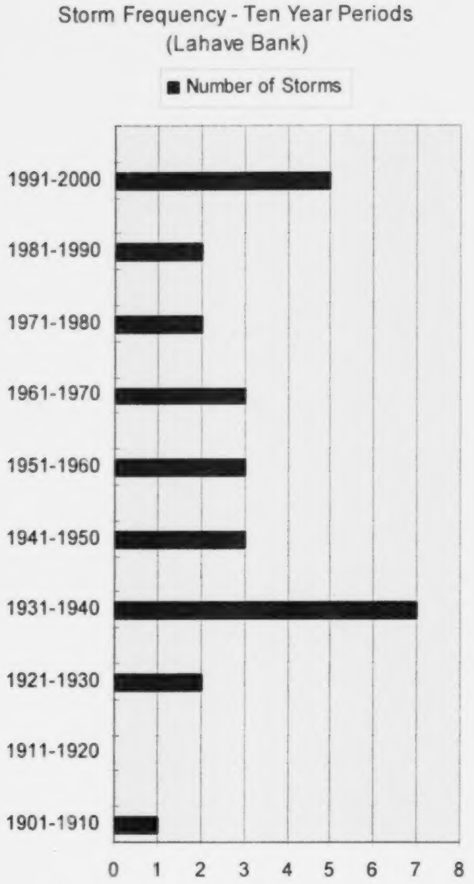
Name	Date	Storm #	MaxWind (kts)	SS Scale	AvgSysSpd (kts)	Pres (mb)	Comment	ENSO
Not Named	Sep 26, 1937	7	75	SS1	25.6		E	Neutral
Not Named	Sep 17, 1940	5	65	SS1	23.0			El Nino
Not Named	Sep 15, 1943	5	40	TS	22.9		E	Neutral
Able	Aug 21, 1950	1	65	SS1	27.7			Neutral
Daisy	Oct 08, 1962	4	65	SS1	15.5			Neutral
Blanche	Jul 28, 1975	2	70	SS1	29.4	980		La Nina
Unnamed	Nov 02, 1991	8	60	TS	24.7	988		El Nino
Allison	Jun 08, 1995	1	50	TS	22.3	984	E	Neutral
Hortense	Sep 14, 1996	8	75	SS1	22.2	960		Neutral

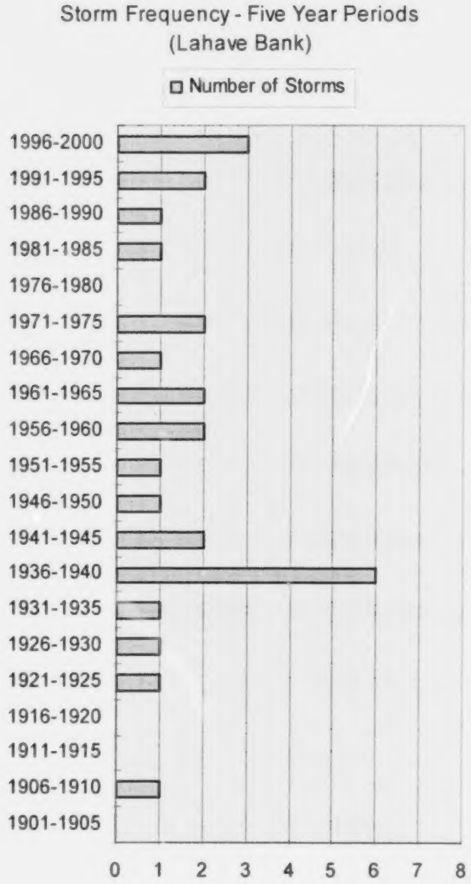
LaHave Bank

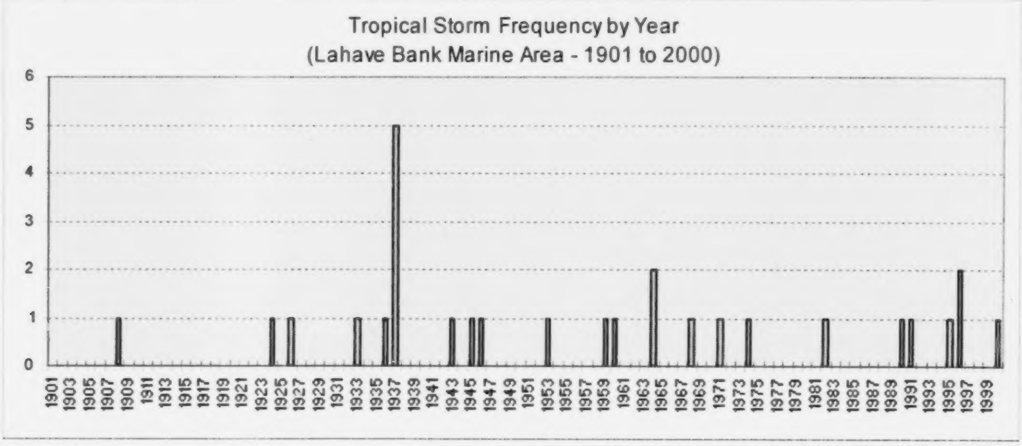




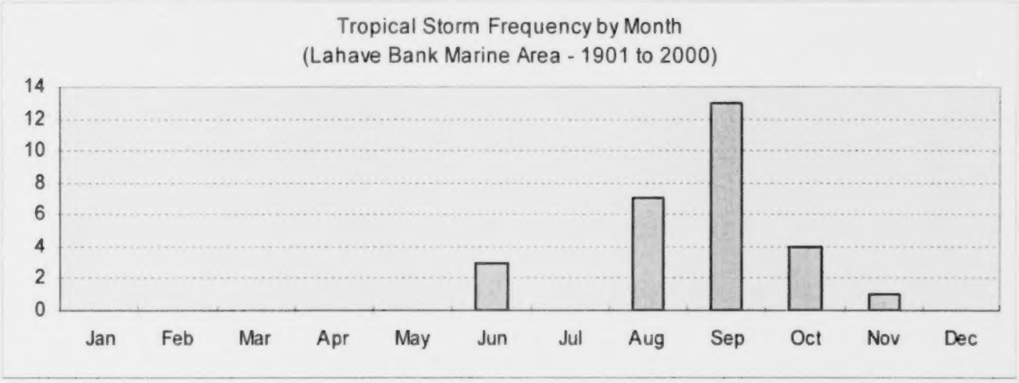
LaHave Bank Marine Area Boundaries:
44°N 63°W to 43°N 65.5°W then southeastward along a line joining 43°N 65.5°W and 40°N 65°W to 42°N, then northeastward to 43°N 63°W then due north to 44°N 63°W.


Storm Frequency - Ten Year Periods
(Lahave Bank)

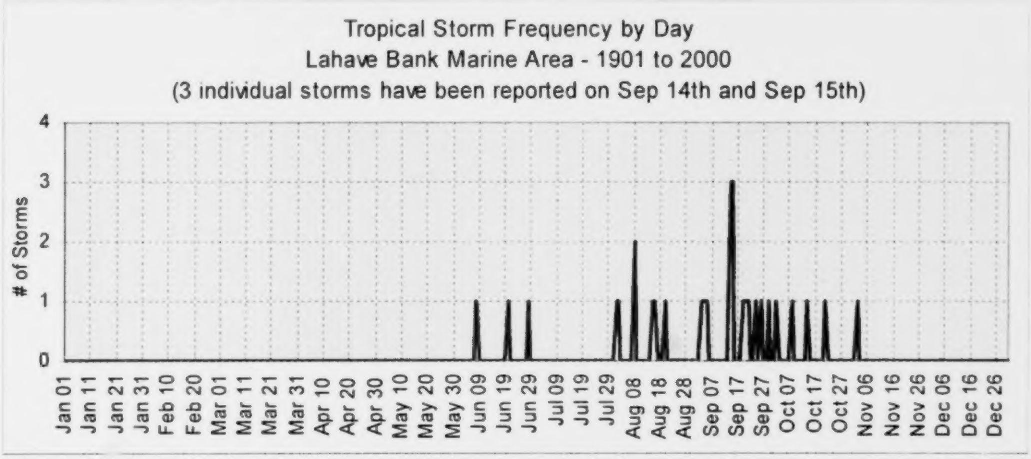

Storm Frequency - Five Year Periods
(Lahave Bank)


Tropical Storm Frequency by Year
(Lahave Bank Marine Area - 1901 to 2000)

Note: Storms that span months were counted in both months


Tropical Storm Frequency by Month
(Lahave Bank Marine Area - 1901 to 2000)

Note: Storms will generally span more than one day. The storm is counted in each day


Tropical Storm Frequency by Day
Lahave Bank Marine Area - 1901 to 2000
(3 individual storms have been reported on Sep 14th and Sep 15th)

LaHave Bank – Summary Statistics

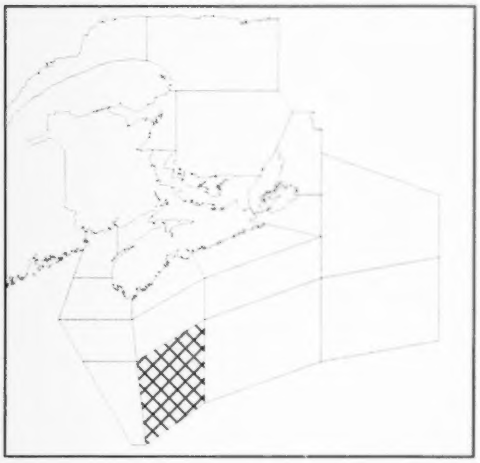
100 Yr	**TD**	**TS**	**G**	**S**	**S1**	**S2**	**S3**	**S4**	**S5**	**H**	**<H**	**ALL**	**Sys-Spd**
#	2	14	5	9	10	2	0	0	0	12	16	28	24.7
Return	50	7.1	20	11.1	10	50	NA	NA	NA	8.3	6.3	3.6	
50 Yr	**TD**	**TS**	**G**	**S**	**S1**	**S2**	**S3**	**S4**	**S5**	**H**	**<H**	**ALL**	**Sys-Spd**
#	2	8	1	7	5	0	0	0	0	5	10	15	27.3
Return	25	6.3	50	7.1	10	NA	NA	NA	NA	10	5	3.3	

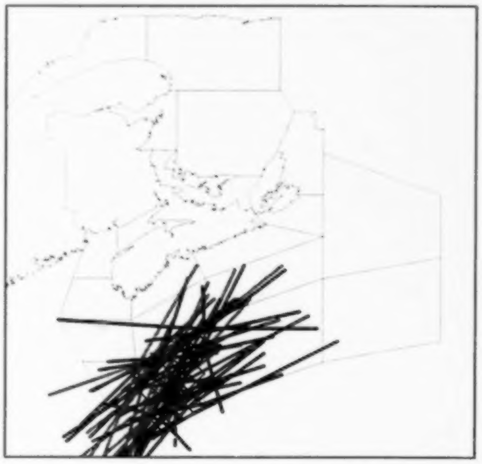
LaHave Bank – Storm Details

Name	**Date**	**Storm #**	**MaxWind (kts)**	**SS Scale**	**AvgSysSpd (kts)**	**Pres (mb)**	**Comment**	**ENSO**
Not Named	Aug 02, 1908	2	85	SS2	22.0			La Nina
Not Named	Sep 04, 1924	3	70	SS1	25.5		E	La Nina
Not Named	Aug 08, 1926	2	75	SS1	23.2			Neutral
Not Named	Oct 08, 1933	18	90	SS2	11.9		E	Neutral
Not Named	Sep 19, 1936	13	80	SS1	31.3			Neutral

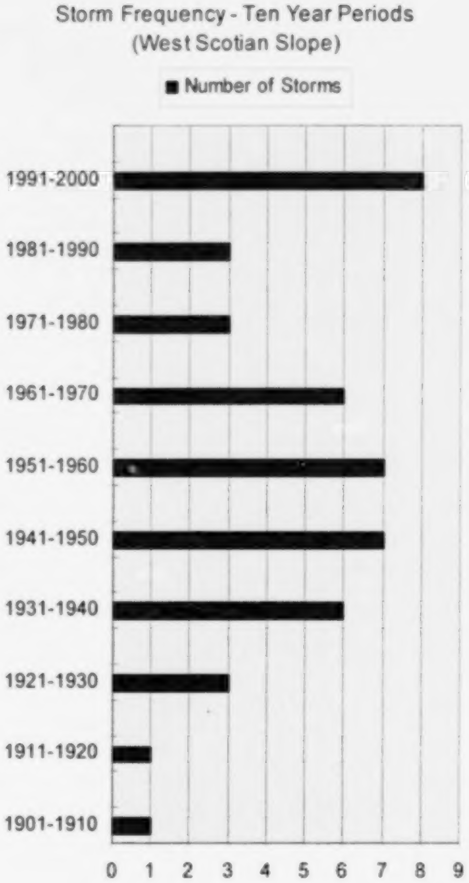
Name	Date	Storm #	MaxWind (kts)	SS Scale	AvgSysSpd (kts)	Pres (mb)	Comment	ENSO
Not Named	Aug 01, 1937	1	50	TS	17.0			Neutral
Not Named	Aug 08, 1937	2	40	TS	14.7			Neutral
Not Named	Sep 14, 1937	4	60	TS	28.0			Neutral
Not Named	Sep 26, 1937	7	80	SS1	20.3		E	Neutral
Not Named	Sep 29, 1937	8	35	TS	22.6		E	Neutral
Not Named	Sep 15, 1943	5	40	TS	25.1		E	Neutral
Not Named	Jun 28, 1945	1	45	TS	15.6			Neutral
Not Named	Sep 15, 1946	4	65	SS1	25.3			Neutral
Barbara	Aug 15, 1953	2	75	SS1	33.3			Neutral
Gracie	Oct 02, 1959	8	25	TD	33.8		E	Neutral
Cleo	Aug 20, 1960	4	60	TS	21.0			Neutral
Dora	Sep 14, 1964	6	55	TS	31.0		E	La Nina
Gladys	Sep 24, 1964	9	65	SS1	30.9	982		La Nina
Gladys	Oct 21, 1968	8	65	SS1	35.3			Neutral
Beth	Aug 16, 1971	3	65	SS1	12.4	978		La Nina
Dolly	Sep 05, 1974	7	40	TS	31.7			Neutral
Subtrop 1	Jun 20, 1982	2	60	TS	44.6	988	S	El Nino
Lili	Oct 14, 1990	12	50	TS	34.4	995		Neutral
Unnamed	Nov 02, 1991	8	60	TS	25.3	988		El Nino
Allison	Jun 08, 1995	1	50	TS	21.9	984	E	Neutral
Edouard	Sep 03, 1996	5	55	TS	11.4	985	E	Neutral
Hortense	Sep 14, 1996	8	75	SS1	26.9	960		Neutral
Gordon	Sep 20, 2000	7	30	TD	16.1	1005	E	La Nina

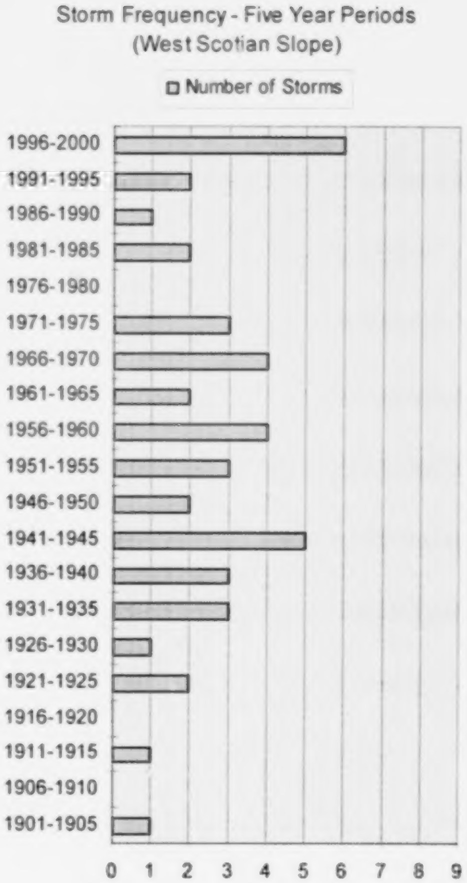
West Scotian Slope

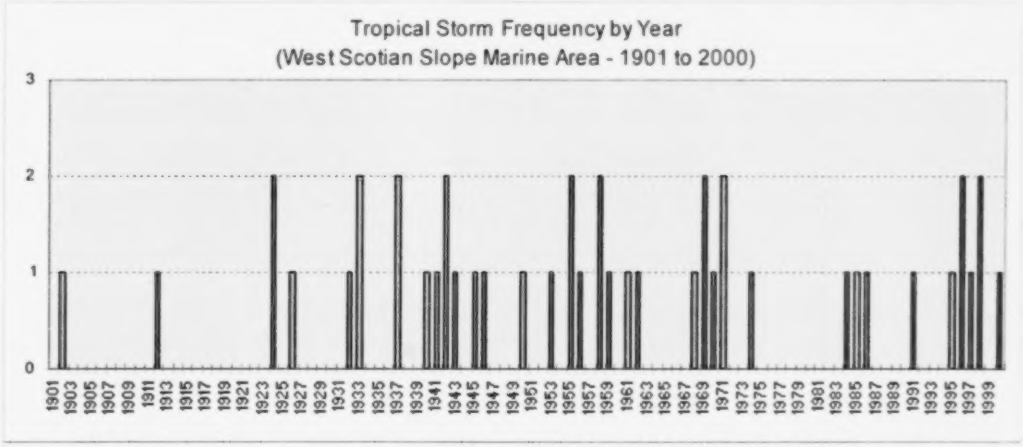




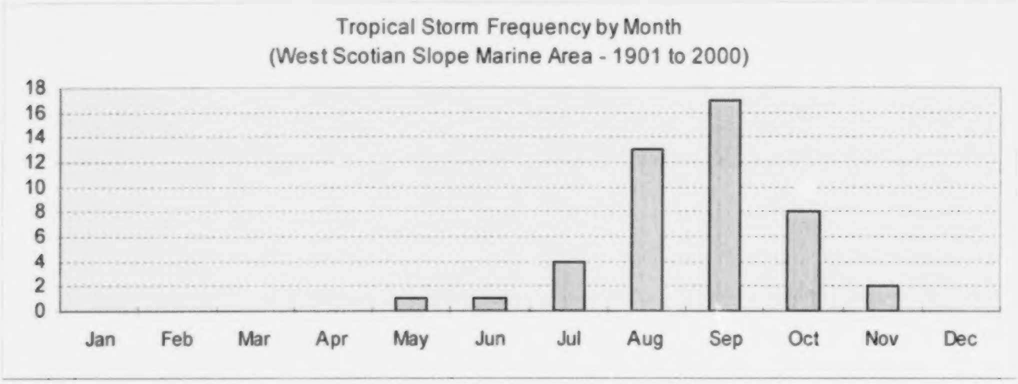
West Scotian Slope Marine Area Boundaries:
43°N 63°W southwestward to intersect at 42°N a line joining 43°N 65.5°W and 40°N 65°W, then southward to 40°N 65°W, then northeastward to 41°N 63°W, then due north to 43°N 63°W.


Storm Frequency - Ten Year Periods (West Scotian Slope)

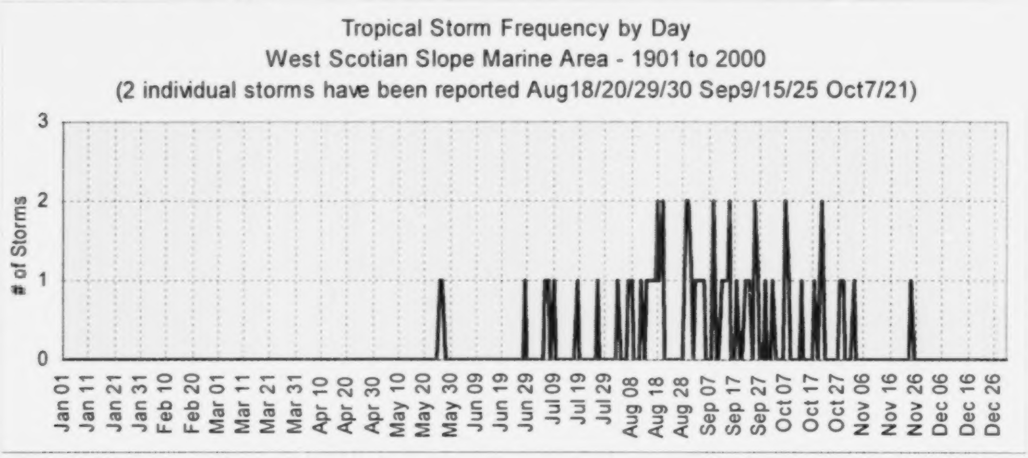

Storm Frequency - Five Year Periods (West Scotian Slope)


Tropical Storm Frequency by Year (West Scotian Slope Marine Area - 1901 to 2000)

Note: Storms that span months were counted in both months



Note: Storms will generally span more than one day. The storm is counted in each day



West Scotian Slope – Summary Statistics

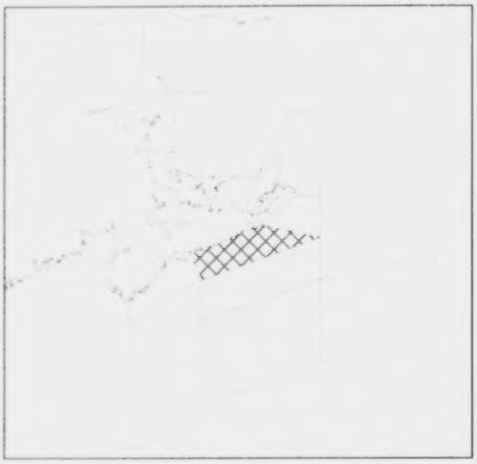
100 Yr	**TD**	**TS**	**G**	**S**	**S1**	**S2**	**S3**	**S4**	**S5**	**H**	**<H**	**ALL**	**Sys-Spd**
#	3	27	12	15	11	3	1	0	0	15	30	45	25.9
Return	33.3	3.7	8.3	6.7	9.1	33.3	100	NA	NA	6.7	3.3	2.2	
50 Yr	**TD**	**TS**	**G**	**S**	**S1**	**S2**	**S3**	**S4**	**S5**	**H**	**<H**	**ALL**	**Sys-Spd**
#	2	17	5	12	6	2	0	0	0	8	19	27	27.9
Return	25	2.9	10	4.2	8.3	25	NA	NA	NA	6.3	2.6	1.9	

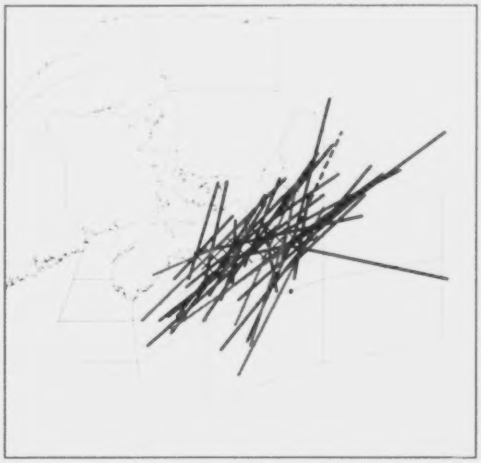
West Scotian Slope – Storm Details

Name	**Date**	**Storm #**	**MaxWind (kts)**	**SS Scale**	**AvgSysSpd (kts)**	**Pres (mb)**	**Comment**	**ENSO**
Not Named	Oct 13, 1902	4	35	TS	35.2		E	El Nino
Not Named	Nov 24, 1912	6	60	TS	35.7		E	Neutral
Not Named	Sep 04, 1924	3	75	SS1	24.6		E	La Nina
Not Named	Sep 18, 1924	4	40	TS	33.8		E	La Nina
Not Named	Aug 07, 1926	2	80	SS1	22.5			Neutral

Name	Date	Storm #	MaxWind (kts)	SS Scale	AvgSysSpd (kts)	Pres (mb)	Comment	ENSO
Not Named	Sep 09, 1932	4	90	SS2	19.9			Neutral
Not Named	Oct 07, 1933	18	100	SS3	19.9			Neutral
Not Named	Oct 28, 1933	20	60	TS	21.7			Neutral
Not Named	Sep 26, 1937	7	80	SS1	15.4		E	Neutral
Not Named	Sep 29, 1937	8	35	TS	22.5		E	Neutral
Not Named	May 26, 1940	1	30	TD	14.3			El Nino
Not Named	Sep 25, 1941	3	35	TS	19.4			Neutral
Not Named	Sep 22, 1942	5	35	TS	18.1		E	La Nina
Not Named	Oct 18, 1942	9	35	TS	37.9			La Nina
Not Named	Sep 09, 1943	4	75	SS1	22.5			Neutral
Not Named	Jun 28, 1945	1	45	TS	13.8			Neutral
Not Named	Sep 15, 1946	4	65	SS1	24.1			Neutral
Dog	Sep 12, 1950	4	60	TS	13.2		E	Neutral
Not Named	Oct 07, 1953	10	60	TS	18.6		E	Neutral
Diane	Aug 20, 1955	3	35	TS	22.3			La Nina
Ione	Sep 21, 1955	9	75	SS1	49.5			La Nina
Betsy	Aug 18, 1956	3	65	SS1	20.0			La Nina
Becky	Aug 17, 1958	2	25	TD	38.8		E	Neutral
Daisy	Aug 29, 1958	4	90	SS2	30.4	982		Neutral
Gracie	Oct 02, 1959	8	25	TD	32.3		E	Neutral
Gerda	Oct 20, 1961	8	60	TS	14.6			Neutral
Alma	Aug 30, 1962	1	45	TS	13.1			Neutral
Gladys	Oct 21, 1968	8	65	SS1	34.4			Neutral
Anna	Aug 03, 1969	1	55	TS	29.2	1002		El Nino
Blanche	Aug 12, 1969	2	75	SS1	40.5			El Nino
Not Named	Aug 18, 1970	4	55	TS	58.3	992		La Nina
Arlene	Jul 06, 1971	1	55	TS	26.6	1000		La Nina
Beth	Aug 15, 1971	3	75	SS1	15.2			La Nina
Subtrop 3	Aug 14, 1974	3	50	TS	9.6	992	S	Neutral
Diana	Sep 15, 1984	5	60	TS	39.3	992		Neutral
Ana	Jul 18, 1985	1	55	TS	22.5	996		Neutral
Charley	Aug 19, 1986	3	45	TS	12.5	1002		El Nino
Unnamed	Nov 02, 1991	8	65	SS1	23.8	981		El Nino
Barry	Jul 09, 1995	2	50	TS	21.6	996		Neutral
Edouard	Sep 03, 1996	5	50	TS	19.5	992	E	Neutral
Hortense	Sep 14, 1996	8	85	SS2	32.4	960		Neutral
Danny	Jul 26, 1997	5	40	TS	20.4	1003	E	El Nino
Bonnie	Aug 29, 1998	2	45	TS	27.2	999		La Nina
Earl	Sep 05, 1998	5	50	TS	42.1	998	E	La Nina
Helene	Sep 25, 2000	8	55	TS	37.9	993		La Nina

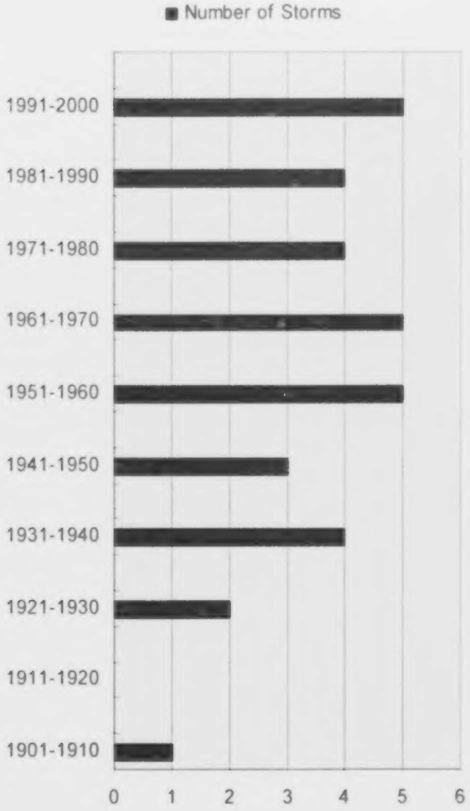
Eastern Shore



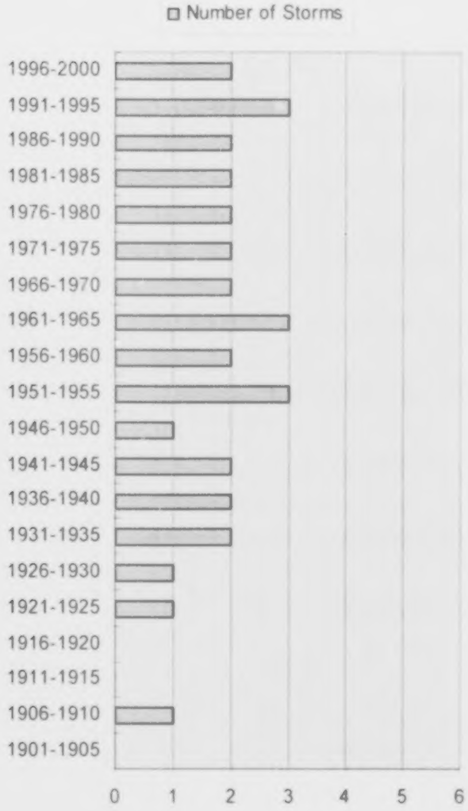


Eastern Shore Marine Area Boundaries:
45°N 59°W to 44°N 63°W to Halifax Harbour, then along eastern shore of Nova Scotia to Cape Canso, then to 45°N 59°W.

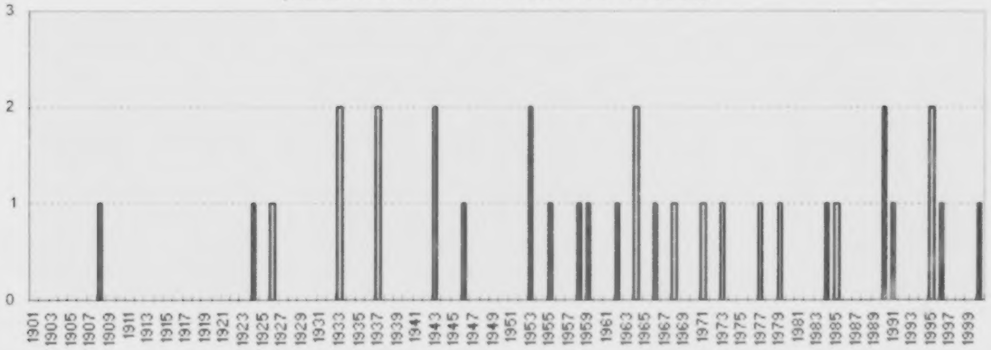
Storm Frequency - Ten Year Periods
(Eastern Shore)



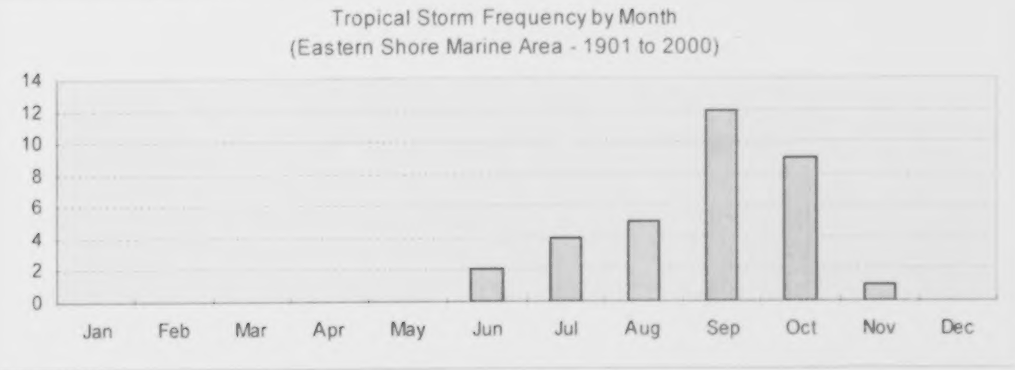
Storm Frequency - Five Year Periods
(Eastern Shore)



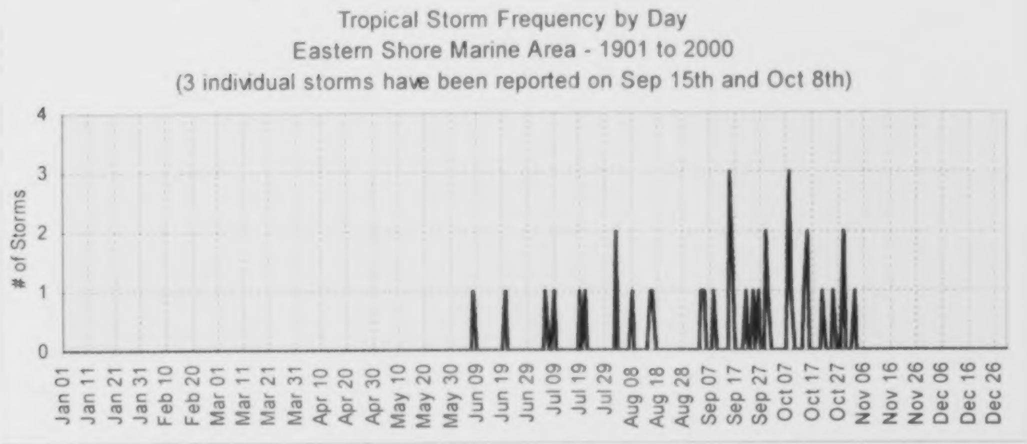
Tropical Storm Frequency by Year
(Eastern Shore Marine Area - 1901 to 2000)



Note: Storms that span months were counted in both months



Note: Storms will generally span more than one day. The storm is counted in each day



Eastern Shore – Summary Statistics

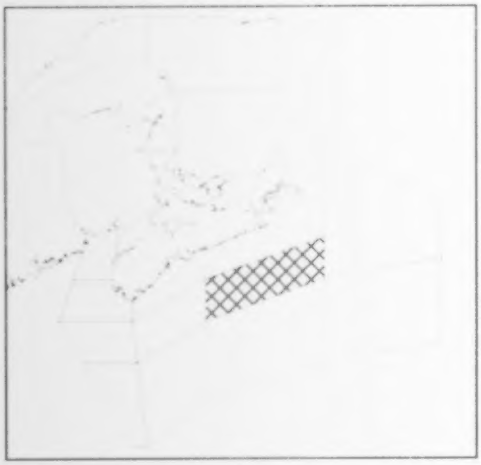
100 Yr	TD	TS	G	S	S1	S2	S3	S4	S5	H	<H	ALL	Sys-Spd
#	0	17	3	14	14	2	0	0	0	16	17	33	26.7
Return	NA	5.9	33.3	7.1	7.1	50	NA	NA	NA	6.3	5.9	3	
50 Yr	**TD**	**TS**	**G**	**S**	**S1**	**S2**	**S3**	**S4**	**S5**	**H**	**<H**	**ALL**	**Sys-Spd**
#	0	12	1	11	11	0	0	0	0	11	12	23	27.7
Return	NA	4.2	50	4.5	4.5	NA	NA	NA	NA	4.5	4.2	2.2	

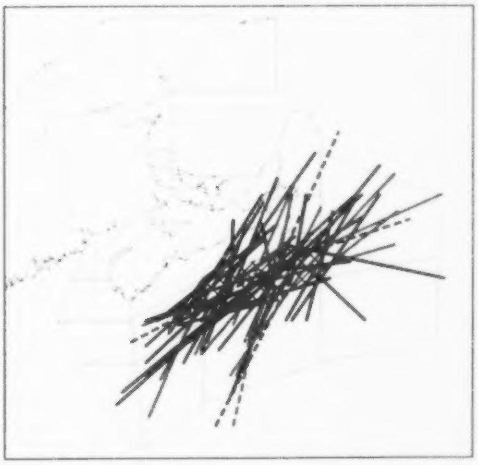
Eastern Shore – Storm Details

Name	Date	Storm #	MaxWind (kts)	SS Scale	AvgSysSpd (kts)	Pres (mb)	Comment	ENSO
Not Named	Aug 02, 1908	2	85	SS2	24.3			La Nina
Not Named	Sep 04, 1924	3	70	SS1	26.1		E	La Nina
Not Named	Aug 08, 1926	2	70	SS1	25.8		E	Neutral
Not Named	Oct 08, 1933	18	85	SS2	18.3		E	Neutral
Not Named	Oct 29, 1933	20	60	TS	15.0		E	Neutral

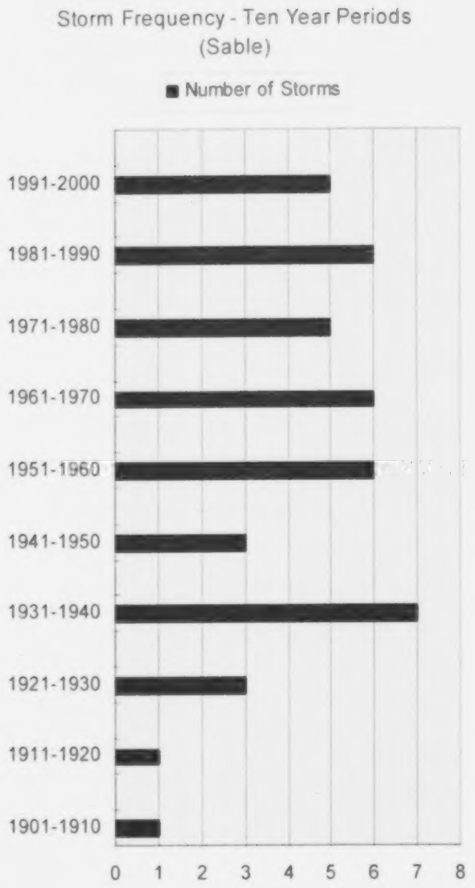
Name	Date	Storm #	MaxWind (kts)	SS Scale	AvgSysSpd (kts)	Pres (mb)	Comment	ENSO
Not Named	Sep 26, 1937	7	75	SS1	25.6		E	Neutral
Not Named	Sep 29, 1937	8	35	TS	25.2		E	Neutral
Not Named	Sep 09, 1943	4	60	TS	34.2			Neutral
Not Named	Sep 16, 1943	5	40	TS	20.7		E	Neutral
Not Named	Sep 15, 1946	4	60	TS	28.6		E	Neutral
Barbara	Aug 15, 1953	2	70	SS1	35.0		E	Neutral
Not Named	Oct 08, 1953	10	60	TS	18.2		E	Neutral
Ione	Sep 21, 1955	9	60	TS	28.5		E	La Nina
Helene	Sep 29, 1958	8	70	SS1	45.2	963		Neutral
Not Named	Jun 20, 1959	3	70	SS1	16.3		E	Neutral
Daisy	Oct 08, 1962	4	65	SS1	17.5			Neutral
Dora	Sep 15, 1964	6	55	TS	25.0		E	La Nina
Gladys	Sep 24, 1964	9	65	SS1	40.4	973		La Nina
Celia	Jul 21, 1966	3	65	SS1	37.2	998		Neutral
Gladys	Oct 21, 1968	8	65	SS1	25.0	975	E	Neutral
Beth	Aug 16, 1971	3	65	SS1	14.8	984		La Nina
Alice	Jul 06, 1973	1	60	TS	30.8			La Nina
Evelyn	Oct 15, 1977	5	70	SS1	32.6	996		Neutral
Subtrop 1	Oct 25, 1979	9	60	TS	44.0	980	S	Neutral
Diana	Sep 16, 1984	5	60	TS	38.4	994		Neutral
Ana	Jul 19, 1985	1	60	TS	26.2	996		Neutral
Bertha	Aug 02, 1990	2	70	SS1	18.4	973		Neutral
Lili	Oct 14, 1990	12	45	TS	37.3	995		Neutral
Unnamed	Nov 02, 1991	8	50	TS	24.1	996		El Nino
Allison	Jun 08, 1995	1	50	TS	22.8	989	E	Neutral
Barry	Jul 09, 1995	2	50	TS	22.6	991		Neutral
Hortense	Sep 15, 1996	8	70	SS1	17.5	970		Neutral
Subtrop	Oct 29, 2000	15	50	TS	20.3	980	E	La Nina

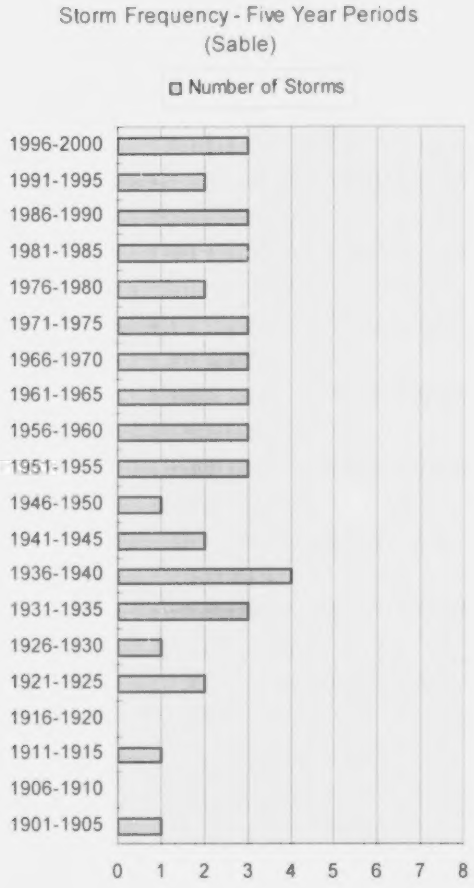
Sable

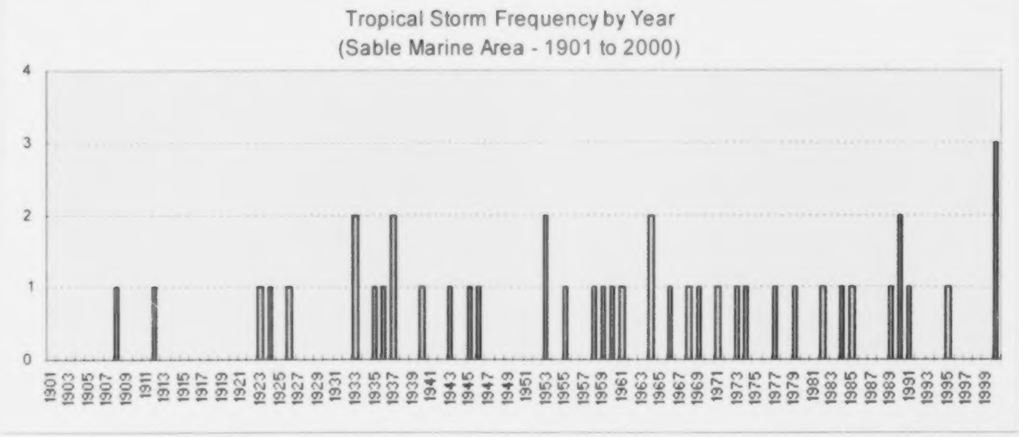




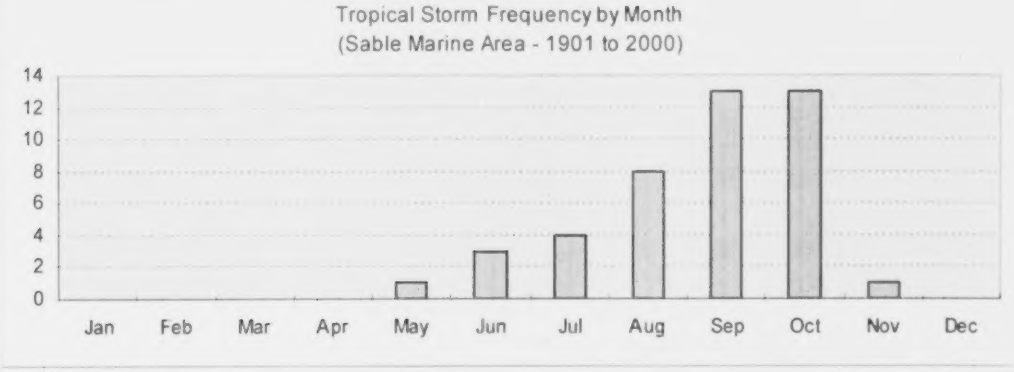
Sable Marine Area Boundaries:
44°N 59°W to 43°N 63°W then due north along 63°W to 44°N 63°W to 45°N 59°W then due south along 59°W to 44°N 50°W.


Storm Frequency - Ten Year Periods (Sable)

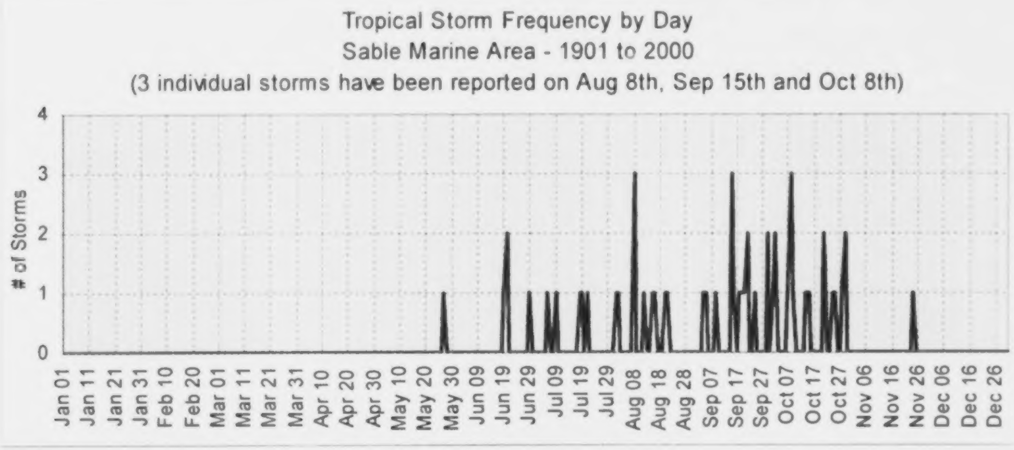

Storm Frequency - Five Year Periods (Sable)


Tropical Storm Frequency by Year (Sable Marine Area - 1901 to 2000)

Note: Storms that span months were counted in both months



Note: Storms will generally span more than one day. The storm is counted in each day



Sable – Summary Statistics

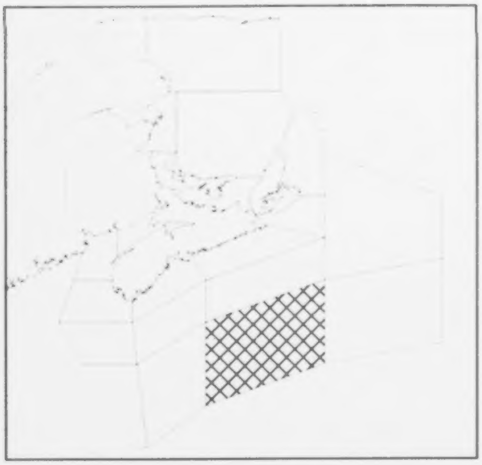
100 Yr	**TD**	**TS**	**G**	**S**	**S1**	**S2**	**S3**	**S4**	**S5**	**H**	**<H**	**ALL**	**Sys-Spd**
#	3	20	6	14	19	1	0	0	0	20	23	43	27.5
Return	33.3	5	16.7	7.1	5.3	100	NA	NA	NA	5	4.3	2.3	
50 Yr	TD	TS	G	S	S1	S2	S3	S4	S5	H	<H	ALL	Sys-Spd
#	2	14	3	11	12	0	0	0	0	12	16	28	29.0
Return	**25**	**3.6**	**16.7**	**4.5**	**4.2**	**NA**	**NA**	**NA**	**NA**	**4.2**	**3.1**	**1.8**	

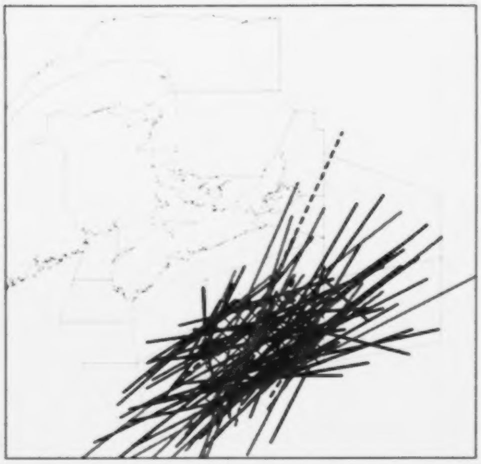
Sable – Storm Details

Name	**Date**	**Storm #**	**MaxWind (kts)**	**SS Scale**	**AvgSysSpd (kts)**	**Pres (mb)**	**Comment**	**ENSO**
Not Named	Sep 18, 1908	4	70	SS1	29.6			La Nina
Not Named	Nov 24, 1912	6	60	TS	36.8		E	Neutral
Not Named	Oct 01, 1923	2	80	SS1	13.4		E	Neutral
Not Named	Sep 04, 1924	3	70	SS1	25.5		E	La Nina
Not Named	Aug 08, 1926	2	75	SS1	24.5			Neutral

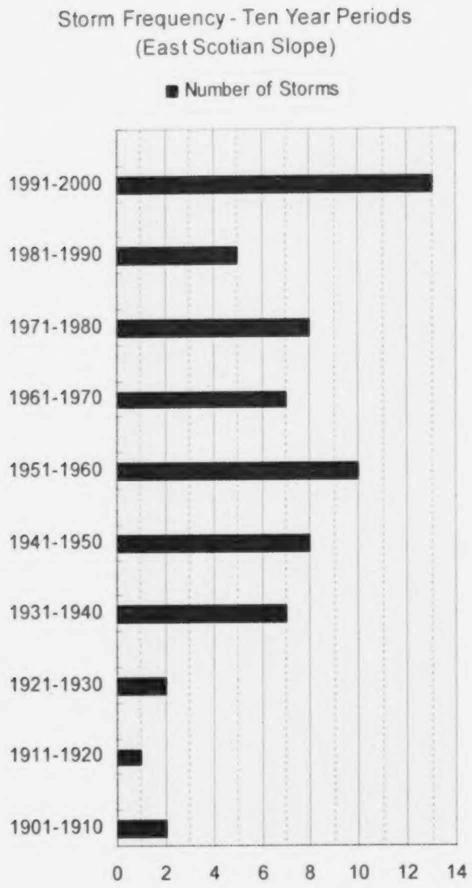
Name	Date	Storm #	MaxWind (kts)	SS Scale	AvgSysSpd (kts)	Pres (mb)	Comment	ENSO
Not Named	Oct 08, 1933	18	85	SS2	19.7		E	Neutral
Not Named	Oct 29, 1933	20	60	TS	15.1		E	Neutral
Not Named	Oct 02, 1935	4	65	SS1	32.5		E	Neutral
Not Named	Sep 19, 1936	13	75	SS1	32.4			Neutral
Not Named	Aug 08, 1937	2	35	TS	25.5			Neutral
Not Named	Sep 29, 1937	8	35	TS	23.9		E	Neutral
Not Named	May 27, 1940	1	25	TD	17.5			El Nino
Not Named	Sep 09, 1943	4	70	SS1	28.2			Neutral
Not Named	Jun 29, 1945	1	40	TS	21.0		E	Neutral
Not Named	Sep 15, 1946	4	60	TS	26.4		E	Neutral
Barbara	Aug 15, 1953	2	70	SS1	35.0		E	Neutral
Not Named	Oct 07, 1953	10	60	TS	17.8		E	Neutral
Ione	Sep 21, 1955	9	60	TS	35.1		E	La Nina
Helene	Sep 29, 1958	8	70	SS1	45.2	963		Neutral
Not Named	Jun 19, 1959	3	70	SS1	21.8		E	Neutral
Cleo	Aug 20, 1960	4	55	TS	19.9			Neutral
Gerda	Oct 21, 1961	8	50	TS	16.6		E	Neutral
Dora	Sep 15, 1964	6	55	TS	26.4		E	La Nina
Gladys	Sep 24, 1964	9	65	SS1	34.0	973		La Nina
Celia	Jul 21, 1966	3	65	SS1	37.2	998		Neutral
Gladys	Oct 21, 1968	8	65	SS1	30.1			Neutral
Blanche	Aug 12, 1969	2	75	SS1	42.5			El Nino
Beth	Aug 16, 1971	3	65	SS1	12.4	979		La Nina
Alice	Jul 06, 1973	1	60	TS	27.6			La Nina
Dolly	Sep 05, 1974	7	40	TS	28.1			Neutral
Evelyn	Oct 15, 1977	5	70	SS1	32.6	996		Neutral
Subtrop 1	Oct 24, 1979	9	65	SS1	37.5	985	S	Neutral
Subtrop 1	Jun 20, 1982	2	60	TS	37.2	988	S	El Nino
Diana	Sep 15, 1984	5	60	TS	38.8	992		Neutral
Ana	Jul 19, 1985	1	60	TS	27.5	996		Neutral
Dean	Aug 08, 1989	4	75	SS1	31.4	975		Neutral
Bertha	Aug 02, 1990	2	70	SS1	18.9	973		Neutral
Lili	Oct 14, 1990	12	45	TS	38.3	995		Neutral
Unnamed	Oct 28, 1991	8	30	TD	14.8	1006	E	El Nino
Barry	Jul 09, 1995	2	50	TS	22.5	993		Neutral
Gordon	Sep 21, 2000	7	30	TD	15.4	1004	E	La Nina
Leslie	Oct 08, 2000	12	40	TS	36.9	1003	E	La Nina
Subtrop	Oct 29, 2000	15	55	TS	30.1	978	S	La Nina

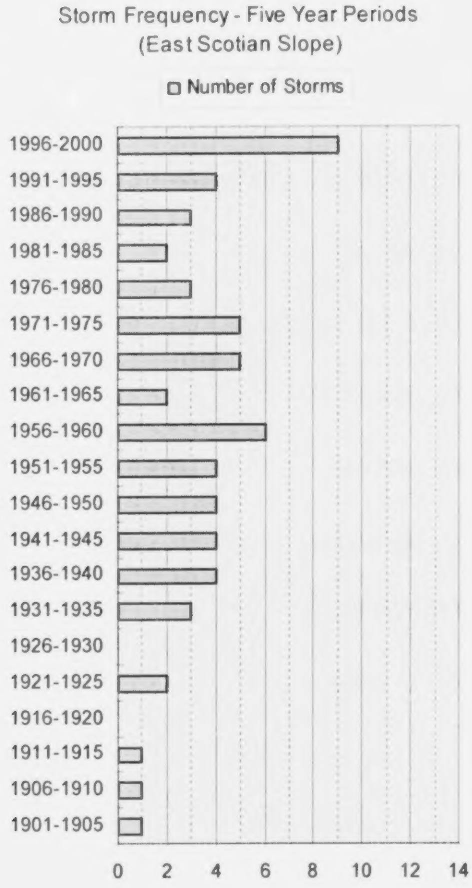
East Scotian Slope

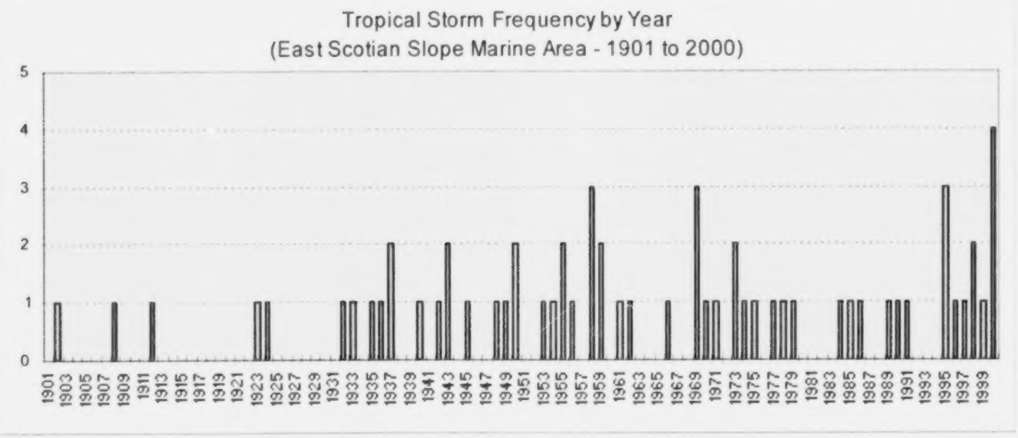




East Scotian Slope Marine Area Boundaries:
42°N 59°W to 41°N 63°W then due north along 63°W to 43°N 63°W to 44°N 59°W then due south to 42°N 59°W.

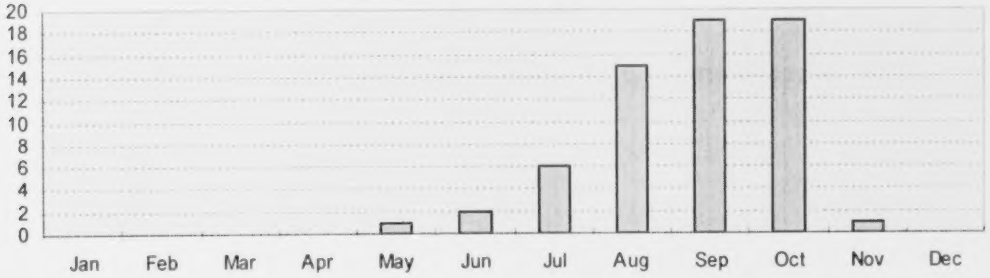

Storm Frequency - Ten Year Periods
(East Scotian Slope)
■ Number of Storms
1991-2000
1981-1990
1971-1980
1961-1970
1951-1960
1941-1950
1931-1940
1921-1930
1911-1920
1901-1910
0
2
4
6
8
10
12
14


Storm Frequency - Five Year Periods
(East Scotian Slope)
□ Number of Storms
1996-2000
1991-1995
1986-1990
1981-1985
1976-1980
1971-1975
1966-1970
1961-1965
1956-1960
1951-1955
1946-1950
1941-1945
1936-1940
1931-1935
1926-1930
1921-1925
1916-1920
1911-1915
1906-1910
1901-1905
0
2
4
6
8
10
12
14


Tropical Storm Frequency by Year
(East Scotian Slope Marine Area - 1901 to 2000)
5
4
3
2
1
0
1901
1903
1905
1907
1909
1911
1913
1915
1917
1919
1921
1923
1925
1927
1929
1931
1933
1935
1937
1939
1941
1943
1945
1947
1949
1951
1953
1955
1957
1959
1961
1963
1965
1967
1969
1971
1973
1975
1977
1979
1981
1983
1985
1987
1989
1991
1993
1995
1997
1999

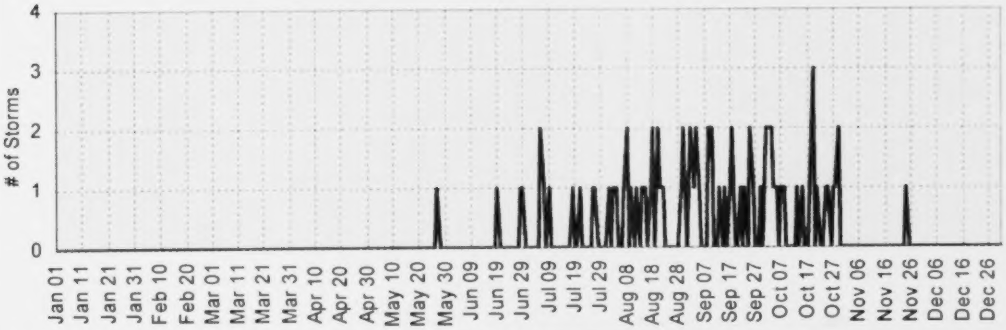
Note: Storms that span months were counted in both months

Tropical Storm Frequency by Month
(East Scotian Slope Marine Area - 1901 to 2000)



Note: Storms will generally span more than one day. The storm is counted in each day

Tropical Storm Frequency by Day
East Scotian Slope Marine Area - 1901 to 2000
(3 individual storms have been reported on Oct 19th)



East Scotian Slope – Summary Statistics

100 Yr	TD	TS	G	S	S1	S2	S3	S4	S5	H	<H	ALL	Sys-Spd
#	5	33	13	20	18	5	1	1	0	25	38	63	29.2
Return	20	3	7.7	5	5.6	20	100	100	NA	4	2.6	1.6	
50 Yr	**TD**	**TS**	**G**	**S**	**S1**	**S2**	**S3**	**S4**	**S5**	**H**	**<H**	**ALL**	**Sys-Spd**
#	4	21	5	16	14	2	1	1	0	18	25	43	33.1
Return	12.5	2.4	10	3.1	3.6	25	50	50	NA	2.8	2	1.2	

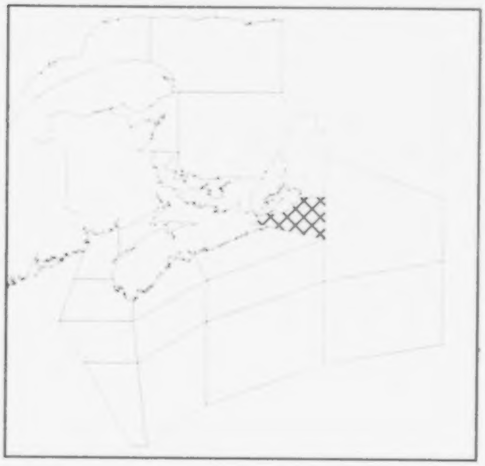
East Scotian Slope – Storm Details

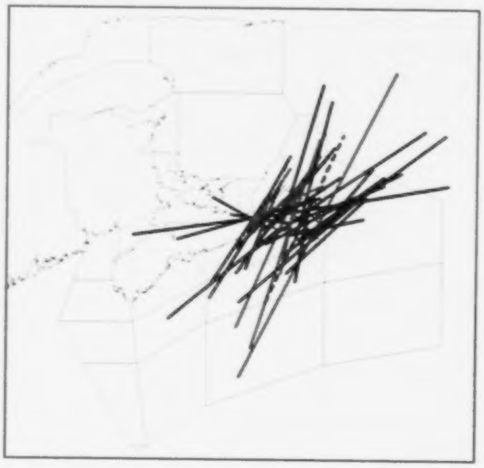
Name	Date	Storm #	MaxWind (kts)	SS Scale	AvgSysSpd (kts)	Pres (mb)	Comment	ENSO
Not Named	Oct 13, 1902	4	40	TS	39.8		E	El Nino
Not Named	Sep 17, 1908	4	70	SS1	17.4			La Nina
Not Named	Nov 24, 1912	6	60	TS	35.7		E	Neutral
Not Named	Oct 01, 1923	2	85	SS2	13.6		E	Neutral
Not Named	Sep 18, 1924	4	40	TS	26.3		E	La Nina

Name	Date	Storm #	MaxWind (kts)	SS Scale	AvgSysSpd (kts)	Pres (mb)	Comment	ENSO
Not Named	Sep 09, 1932	4	85	SS2	13.8		E	Neutral
Not Named	Oct 29, 1933	20	60	TS	16.2		E	Neutral
Not Named	Oct 01, 1935	4	75	SS1	28.8		E	Neutral
Not Named	Aug 10, 1936	6	40	TS	20.5		E	Neutral
Not Named	Aug 08, 1937	2	35	TS	25.5			Neutral
Not Named	Sep 26, 1937	7	80	SS1	15.4		E	Neutral
Not Named	May 27, 1940	1	25	TD	17.5			El Nino
Not Named	Sep 23, 1942	5	35	TS	11.8		E	La Nina
Not Named	Sep 09, 1943	4	70	SS1	22.1			Neutral
Not Named	Oct 03, 1943	8	45	TS	24.0			Neutral
Not Named	Jun 28, 1945	1	45	TS	7.8		E	Neutral
Not Named	Sep 01, 1948	3	60	TS	24.2		E	Neutral
Not Named	Oct 19, 1949	11	45	TS	12.3		E	La Nina
Dog	Sep 13, 1950	4	60	TS	12.7		E	Neutral
George	Oct 04, 1950	7	95	SS2	35.0			Neutral
Not Named	Oct 07, 1953	10	60	TS	17.4		E	Neutral
Dolly	Sep 02, 1954	4	70	SS1	37.0			La Nina
Diane	Aug 20, 1955	3	35	TS	26.5			La Nina
Ione	Sep 21, 1955	9	75	SS1	42.3			La Nina
Betsy	Aug 18, 1956	3	50	TS	24.2			La Nina
Becky	Aug 17, 1958	2	25	TD	39.8		E	Neutral
Daisy	Aug 30, 1958	4	85	SS2	34.1	987	E	Neutral
Helene	Sep 29, 1958	8	85	SS2	43.0	959		Neutral
Not Named	Jun 19, 1959	3	70	SS1	27.4		E	Neutral
Gracie	Oct 02, 1959	8	25	TD	30.8		E	Neutral
Gerda	Oct 21, 1961	8	60	TS	16.8	993	E	Neutral
Alma	Sep 02, 1962	1	25	TD	36.9	1002	E	Neutral
Celia	Jul 21, 1966	3	70	SS1	36.2	998		Neutral
Anna	Aug 03, 1969	1	55	TS	30.9	1002		El Nino
Blanche	Aug 12, 1969	2	75	SS1	42.5			El Nino
Not Named	Sep 25, 1969	10	65	SS1	24.3			El Nino
Not Named	Aug 18, 1970	4	55	TS	58.3	992		La Nina
Arlene	Jul 06, 1971	1	55	TS	27.1	1000		La Nina
Alice	Jul 06, 1973	1	65	SS1	25.9	995		La Nina
Gilda	Oct 27, 1973	8	55	TS	29.8		S	La Nina
Subtrop 3	Aug 14, 1974	3	50	TS	17.9	992	S	Neutral
Gladys	Oct 03, 1975	7	110	SS3	50.6	950		La Nina
Evelyn	Oct 15, 1977	5	70	SS1	33.7	996		Neutral
Ella	Sep 04, 1978	6	120	SS4	38.7	956		Neutral
Subtrop 1	Oct 24, 1979	9	65	SS1	37.5	985	S	Neutral
Diana	Sep 15, 1984	5	60	TS	39.3	992		Neutral
Ana	Jul 18, 1985	1	55	TS	28.8	996		Neutral
Charley	Aug 20, 1986	3	40	TS	14.0	1003		El Nino
Dean	Aug 07, 1989	4	80	SS1	27.4	972		Neutral
Bertha	Aug 01, 1990	2	65	SS1	15.4	977		Neutral
Unnamed	Oct 28, 1991	8	30	TD	14.8	1006	E	El Nino
Barry	Jul 09, 1995	2	50	TS	22.5	993		Neutral
Felix	Aug 21, 1995	6	50	TS	33.8	988		Neutral
Luis	Sep 10, 1995	12	80	SS1	38.2	966		Neutral
Edouard	Sep 03, 1996	5	50	TS	18.6	992	E	Neutral
Danny	Jul 26, 1997	5	40	TS	25.1	1003	E	El Nino
Bonnie	Aug 29, 1998	2	45	TS	31.6	1000		La Nina
Earl	Sep 05, 1998	5	50	TS	43.0	998	E	La Nina
Irene	Oct 18, 1999	9	80	SS1	66.0	968		La Nina
Helene	Sep 25, 2000	8	60	TS	46.3	986		La Nina

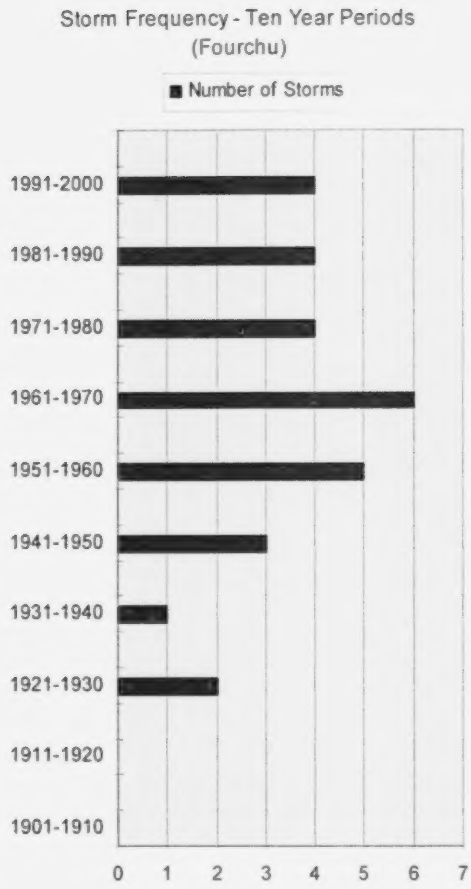
Name	Date	Storm #	MaxWind (kts)	SS Scale	AvgSysSpd (kts)	Pres (mb)	Comment	ENSO
Leslie	Oct 08, 2000	12	40	TS	39.7	1004	E	La Nina
Michael	Oct 19, 2000	13	75	SS1	47.9	979		La Nina
Subtrop	Oct 29, 2000	15	55	TS	40.0	978	S	La Nina

Fourchu

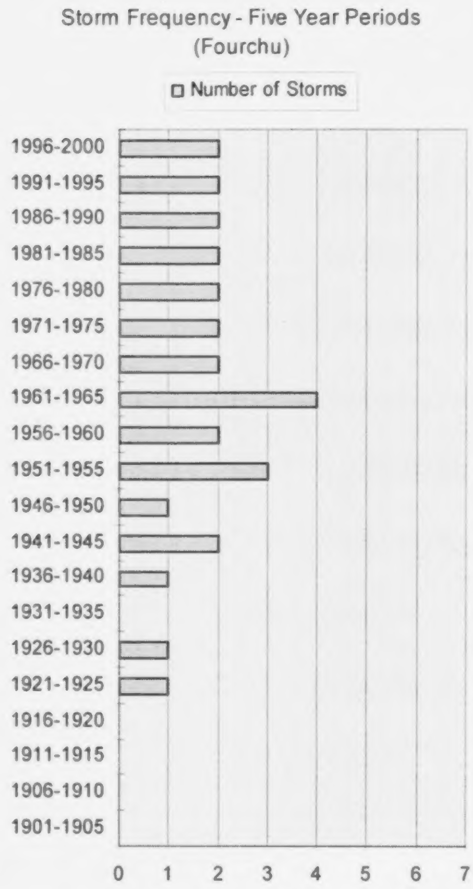




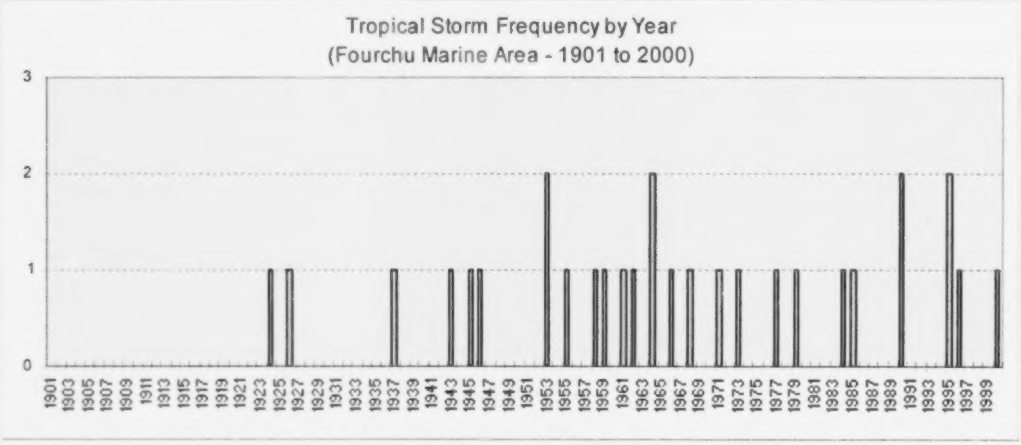
Fourchu Marine Area Boundaries:
45°N 59°W to Cape Canso then along east coast of Nova Scotia to 46°N, then due east along latitude 46°N to 46°N 59°W, then due south along longitude 59°W to 45°N 59°W.



Storm Frequency - Ten Year Periods (Fourchu)

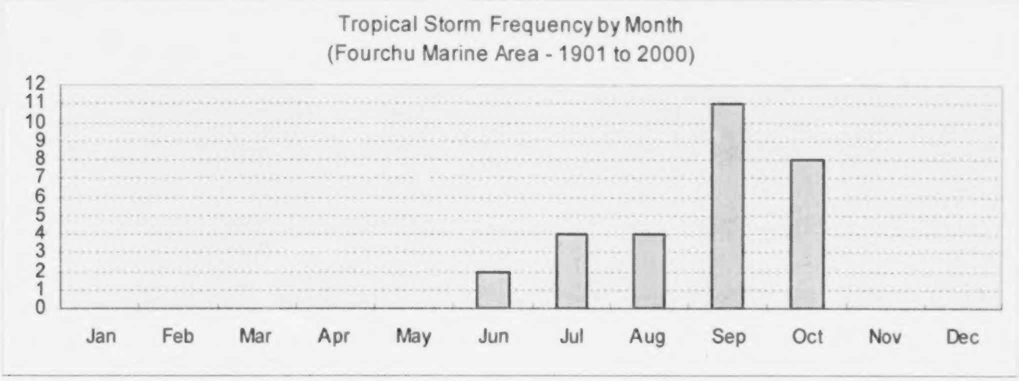


Storm Frequency - Five Year Periods (Fourchu)

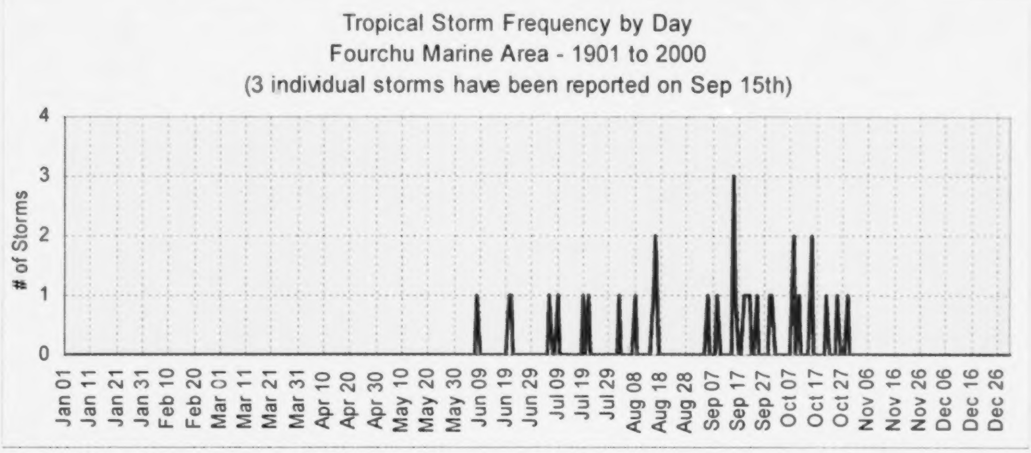


Tropical Storm Frequency by Year (Fourchu Marine Area - 1901 to 2000)

Note: Storms that span months were counted in both months



Note: Storms will generally span more than one day. The storm is counted in each day



Fourchu – Summary Statistics

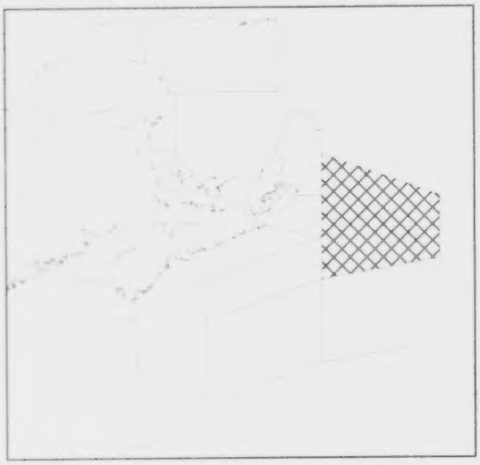
100 Yr	**TD**	**TS**	**G**	**S**	**S1**	**S2**	**S3**	**S4**	**S5**	**H**	**<H**	**ALL**	**Sys-Spd**
#	1	18	4	14	10	0	0	0	0	10	19	29	28.6
Return	100	5.6	25	7.1	10	NA	NA	NA	NA	10	5.3	3.4	
50 Yr	**TD**	**TS**	**G**	**S**	**S1**	**S2**	**S3**	**S4**	**S5**	**H**	**<H**	**ALL**	**Sys-Spd**
#	0	15	3	12	8	0	0	0	0	8	15	23	28.2
Return	NA	3.3	16.7	4.2	6.3	NA	NA	NA	NA	6.3	3.3	2.2	

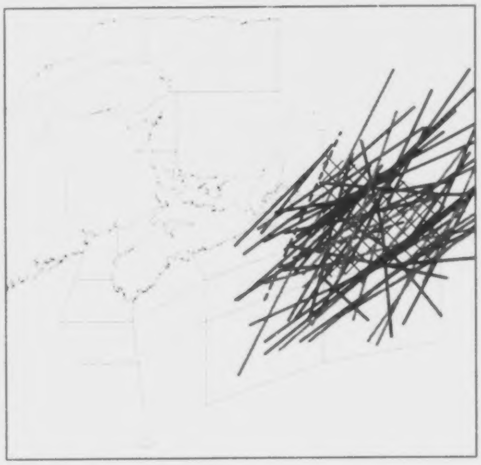
Fourchu – Storm Details

Name	**Date**	**Storm #**	**MaxWind (kts)**	**SS Scale**	**AvgSysSpd (kts)**	**Pres (mb)**	**Comment**	**ENSO**
Not Named	Sep 05, 1924	3	65	SS1	26.8		E	La Nina
Not Named	Aug 08, 1926	2	70	SS1	25.8		E	Neutral
Not Named	Sep 30, 1937	8	35	TS	25.2		E	Neutral
Not Named	Sep 09, 1943	4	60	TS	34.2			Neutral
Not Named	Sep 19, 1945	9	25	TD	37.8		E	Neutral

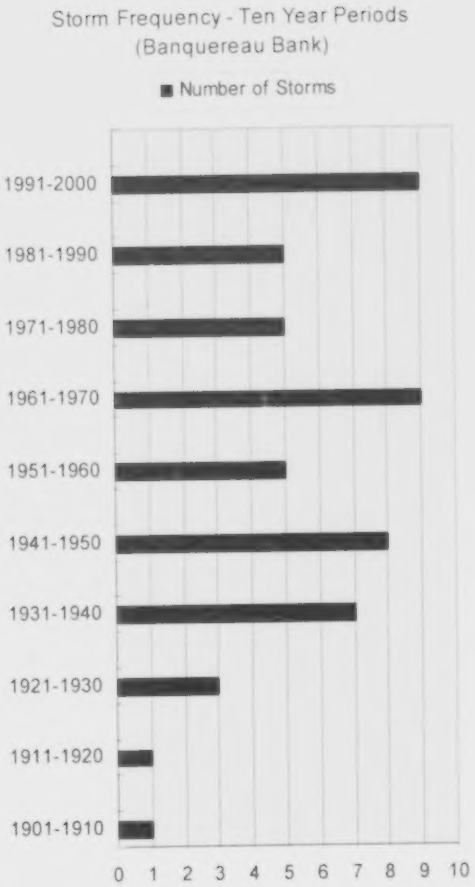
Name	Date	Storm #	MaxWind (kts)	SS Scale	AvgSysSpd (kts)	Pres (mb)	Comment	ENSO
Not Named	Sep 15, 1946	4	55	TS	30.8		E	Neutral
Barbara	Aug 15, 1953	2	70	SS1	35.2		E	Neutral
Not Named	Oct 08, 1953	10	60	TS	20.5		E	Neutral
Ione	Sep 21, 1955	9	50	TS	22.0		E	La Nina
Helene	Sep 29, 1958	8	70	SS1	41.0	963		Neutral
Not Named	Jun 20, 1959	3	60	TS	17.6		E	Neutral
Frances	Oct 10, 1961	7	35	TS	35.1		E	Neutral
Daisy	Oct 08, 1962	4	50	TS	18.7		E	Neutral
Dora	Sep 15, 1964	6	55	TS	26.0		E	La Nina
Gladys	Sep 24, 1964	9	60	TS	46.8	990	E	La Nina
Celia	Jul 21, 1966	3	65	SS1	37.2	998		Neutral
Gladys	Oct 21, 1968	8	65	SS1	25.0	975	E	Neutral
Beth	Aug 16, 1971	3	65	SS1	16.7			La Nina
Alice	Jul 06, 1973	1	60	TS	34.0	991		La Nina
Evelyn	Oct 15, 1977	5	70	SS1	26.3	996		Neutral
Subtrop 1	Oct 25, 1979	9	60	TS	44.0	980	S	Neutral
Diana	Sep 16, 1984	5	60	TS	38.4	994		Neutral
Ana	Jul 19, 1985	1	60	TS	26.2	996		Neutral
Bertha	Aug 02, 1990	2	70	SS1	18.4	973		Neutral
Lili	Oct 15, 1990	12	40	TS	36.3	995	E	Neutral
Allison	Jun 08, 1995	1	45	TS	22.9	993	E	Neutral
Barry	Jul 09, 1995	2	50	TS	22.6	991		Neutral
Hortense	Sep 15, 1996	8	65	SS1	18.5	980		Neutral
Subtrop	Oct 29, 2000	15	50	TS	20.3	980	E	La Nina

Banquereau Bank

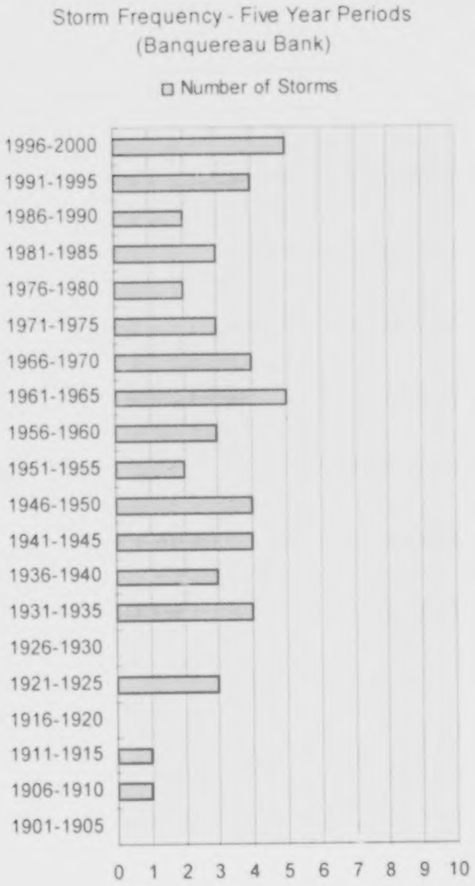




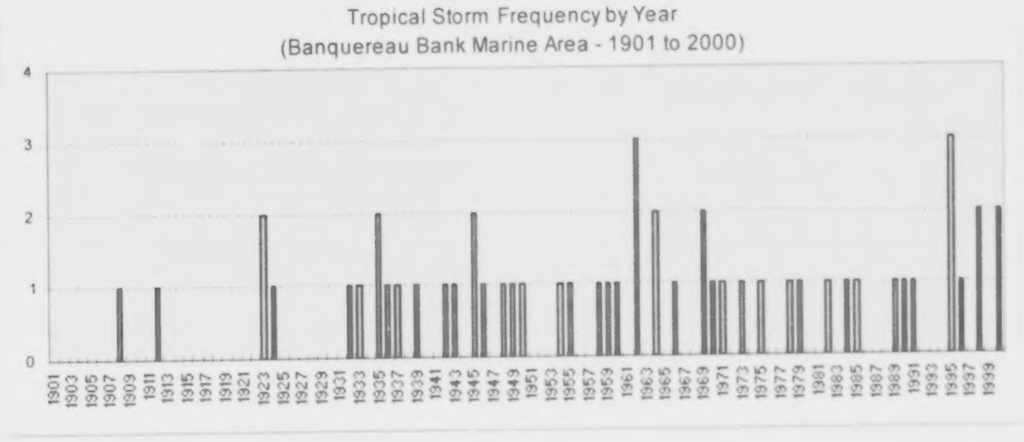
Banquereau Marine Area Boundaries:
44.5°N 55°W to 44°N 59°W then due north to 47°N 59°W to 46°N 55°W then due south to 44.5°N 55°W.



Storm Frequency - Ten Year Periods
(Banquereau Bank)

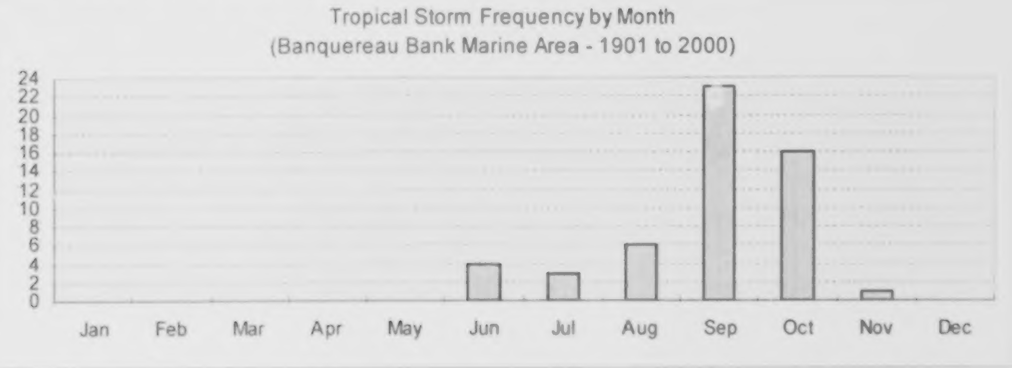


Storm Frequency - Five Year Periods
(Banquereau Bank)

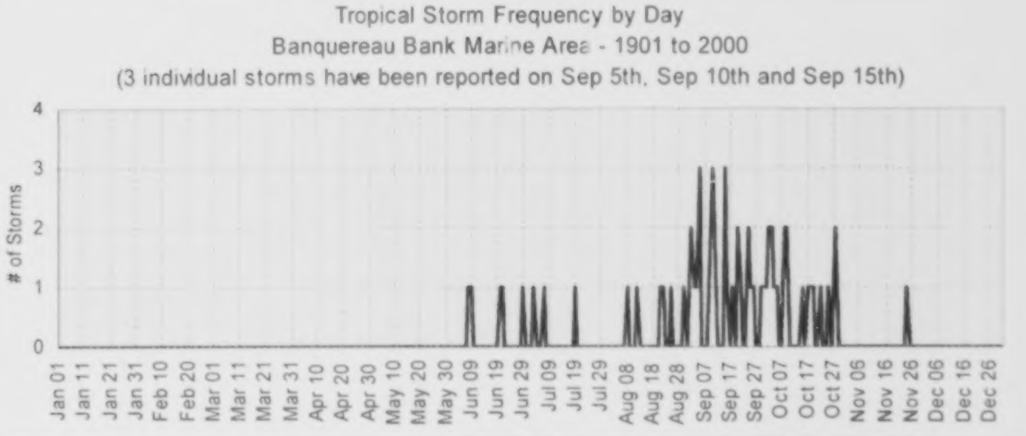


Tropical Storm Frequency by Year
(Banquereau Bank Marine Area - 1901 to 2000)

Note: Storms that span months were counted in both months


Tropical Storm Frequency by Month
(Banquereau Bank Marine Area - 1901 to 2000)

Note: Storms will generally span more than one day. The storm is counted in each day


Tropical Storm Frequency by Day
Banquereau Bank Marine Area - 1901 to 2000
(3 individual storms have been reported on Sep 5th, Sep 10th and Sep 15th)

Banquereau – Summary Statistics

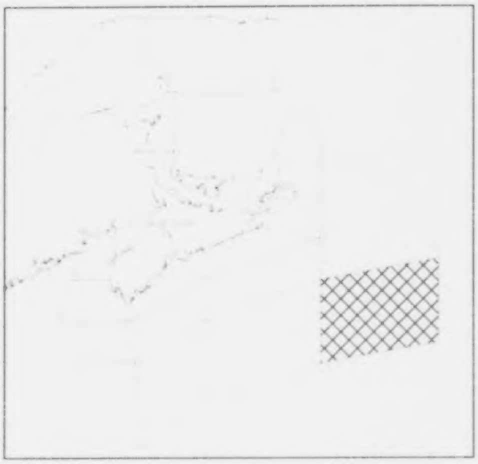
100 Yr	**TD**	**TS**	**G**	**S**	**S1**	**S2**	**S3**	**S4**	**S5**	**H**	**<H**	**ALL**	**Sys-Spd**
#	3	28	11	17	18	3	0	1	0	22	31	53	31.7
Return	33.3	3.6	9.1	5.9	5.6	33.3	NA	100	NA	4.5	3.2	1.9	
50 Yr	**TD**	**TS**	**G**	**S**	**S1**	**S2**	**S3**	**S4**	**S5**	**H**	**<H**	**ALL**	**Sys-Spd**
#	2	21	7	14	7	2	0	1	0	10	23	33	33.3
Return	25	2.4	7.1	3.6	7.1	25	NA	50	NA	5	2.2	1.5	

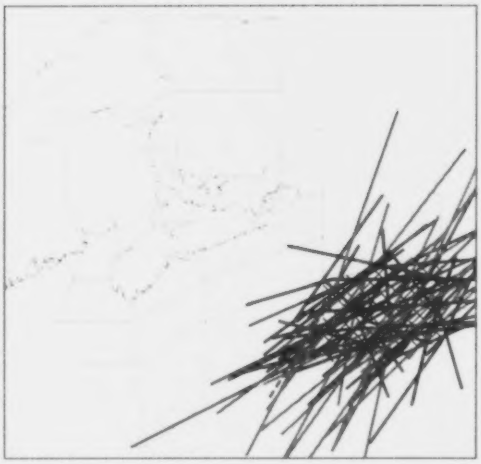
Banquereau – Storm Details

Name	Date	Storm #	MaxWind (kts)	SS Scale	AvgSysSpd (kts)	Pres (mb)	Comment	ENSO
Not Named	Sep 18, 1908	4	70	SS1	27.0			La Nina
Not Named	Nov 24, 1912	6	60	TS	40.5		E	Neutral
Not Named	Sep 09, 1923	1	65	SS1	24.7			Neutral
Not Named	Oct 01, 1923	2	80	SS1	13.8		E	Neutral
Not Named	Sep 05, 1924	3	65	SS1	26.8		E	La Nina

Name	Date	Storm #	MaxWind (kts)	SS Scale	AvgSysSpd (kts)	Pres (mb)	Comment	ENSO
Not Named	Sep 10, 1932	4	70	SS1	11.2		E	Neutral
Not Named	Oct 09, 1933	18	70	SS1	39.4		E	Neutral
Not Named	Aug 25, 1935	1	75	SS1	23.9		E	Neutral
Not Named	Oct 02, 1935	4	65	SS1	36.8		E	Neutral
Not Named	Sep 20, 1936	13	75	SS1	31.9			Neutral
Not Named	Sep 30, 1937	8	35	TS	28.1		E	Neutral
Not Named	Oct 18, 1939	4	80	SS1	34.0			Neutral
Not Named	Sep 24, 1942	5	35	TS	9.9		E	La Nina
Not Named	Oct 03, 1943	8	40	TS	20.8		E	Neutral
Not Named	Jun 29, 1945	1	40	TS	33.5		E	Neutral
Not Named	Sep 20, 1945	9	25	TD	40.9		E	Neutral
Not Named	Sep 15, 1946	4	55	TS	30.8		E	Neutral
Not Named	Sep 01, 1948	3	55	TS	31.5		E	Neutral
Not Named	Sep 10, 1949	4	75	SS1	35.7			La Nina
George	Oct 05, 1950	7	85	SS2	38.6			Neutral
Dolly	Sep 03, 1954	4	65	SS1	35.2		E	La Nina
Ione	Sep 21, 1955	9	50	TS	22.0		E	La Nina
Helene	Sep 29, 1958	8	70	SS1	41.0	963		Neutral
Not Named	Jun 21, 1959	3	45	TS	24.4		E	Neutral
Cleo	Aug 21, 1960	4	35	TS	18.0			Neutral
Alma	Sep 02, 1962	1	15	TD	50.4		E	Neutral
Daisy	Oct 08, 1962	4	50	TS	19.5		E	Neutral
Eila	Oct 22, 1962	5	60	TS	43.2		E	Neutral
Dora	Sep 15, 1964	6	55	TS	26.0		E	La Nina
Gladys	Sep 24, 1964	9	60	TS	46.8	990	E	La Nina
Becky	Jul 03, 1966	2	55	TS	17.5			Neutral
Blanche	Aug 12, 1969	2	65	SS1	42.4	998		El Nino
Not Named	Sep 25, 1969	10	65	SS1	17.6			El Nino
Not Named	Oct 17, 1970	9	70	SS1	55.2	980		La Nina
Arlene	Jul 07, 1971	1	45	TS	28.7	1002		La Nina
Gilda	Oct 27, 1973	8	55	TS	31.3	980	E	La Nina
Gladys	Oct 03, 1975	7	85	SS2	53.7	960		La Nina
Ella	Sep 04, 1978	6	115	SS4	40.5	956		Neutral
Subtrop 1	Oct 25, 1979	9	60	TS	44.0	980	S	Neutral
Subtrop 1	Jun 20, 1982	2	60	TS	29.7	984	S	El Nino
Diana	Sep 16, 1984	5	60	TS	38.4	994		Neutral
Ana	Jul 19, 1985	1	60	TS	27.7	996		Neutral
Dean	Aug 08, 1989	4	65	SS1	32.9	978		Neutral
Lili	Oct 15, 1990	12	40	TS	36.3	995	E	Neutral
Unnamed	Oct 28, 1991	8	30	TD	14.8	1006	E	El Nino
Allison	Jun 08, 1995	1	45	TS	23.3	993	E	Neutral
Felix	Aug 22, 1995	6	50	TS	38.6	987		Neutral
Luis	Sep 11, 1995	12	80	SS1	40.3	965		Neutral
Hortense	Sep 15, 1996	8	60	TS	17.8	982		Neutral
Bonnie	Aug 30, 1998	2	45	TS	30.3	1000		La Nina
Earl	Sep 05, 1998	5	50	TS	34.2	990	E	La Nina
Leslie	Oct 08, 2000	12	40	TS	36.6	1003	E	La Nina
Michael	Oct 19, 2000	13	85	SS2	42.4	965		La Nina

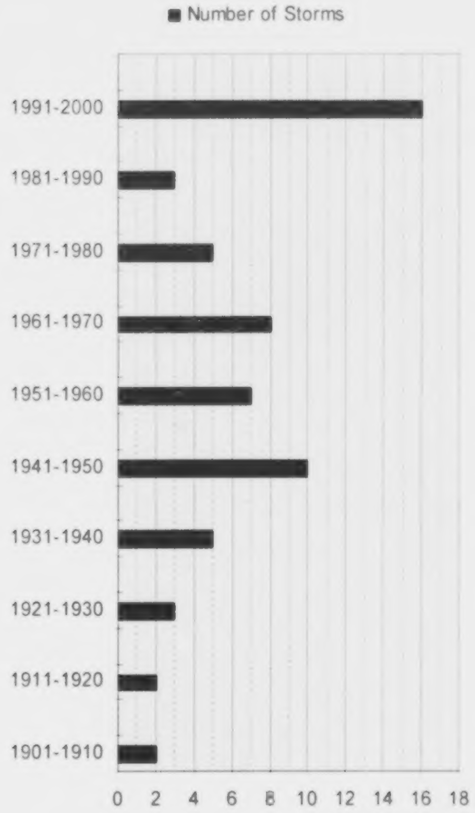
Laurentian Fan



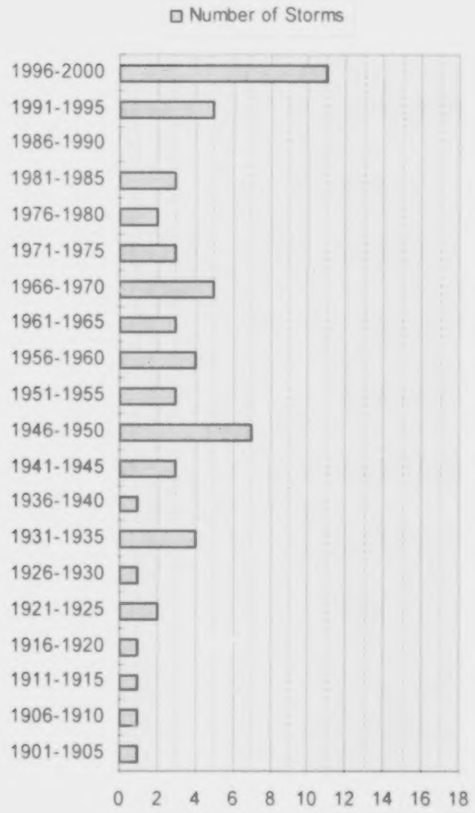


Laurentian Fan Marine Area Boundaries:
42.5°N 55°W to 42°N 59°W then due north along 59°W to 44°N 59°W to 44.5°N 55°W then due south to 42.5°N 55°W.

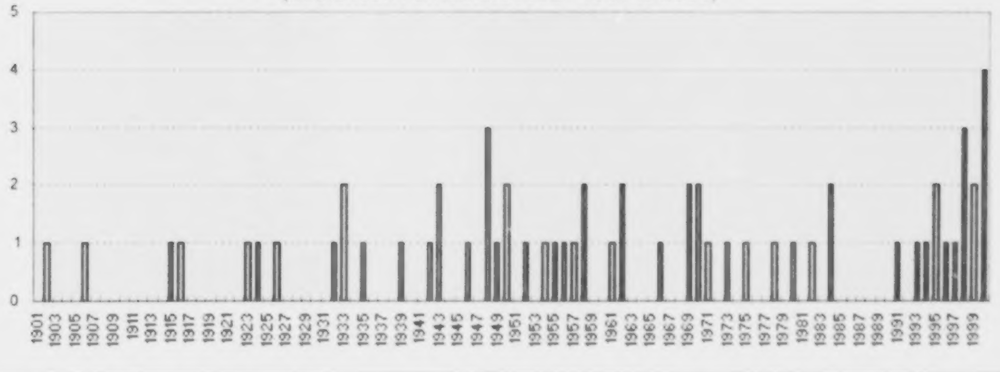
Storm Frequency - Ten Year Periods
(Laurentian Fan)



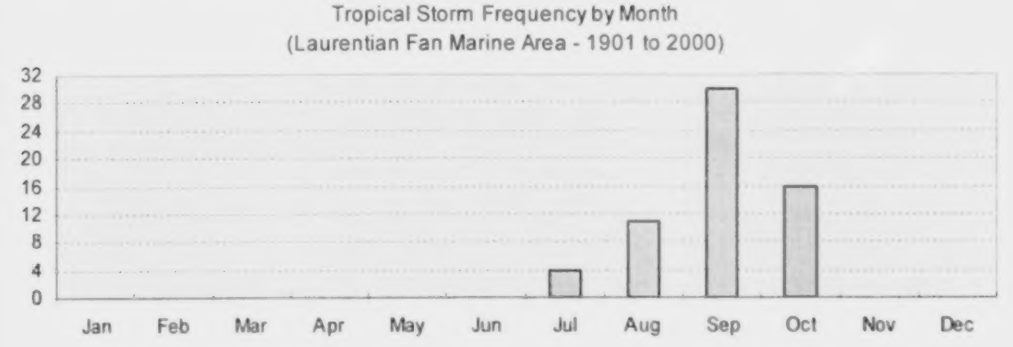
Storm Frequency - Five Year Periods
(Laurentian Fan)



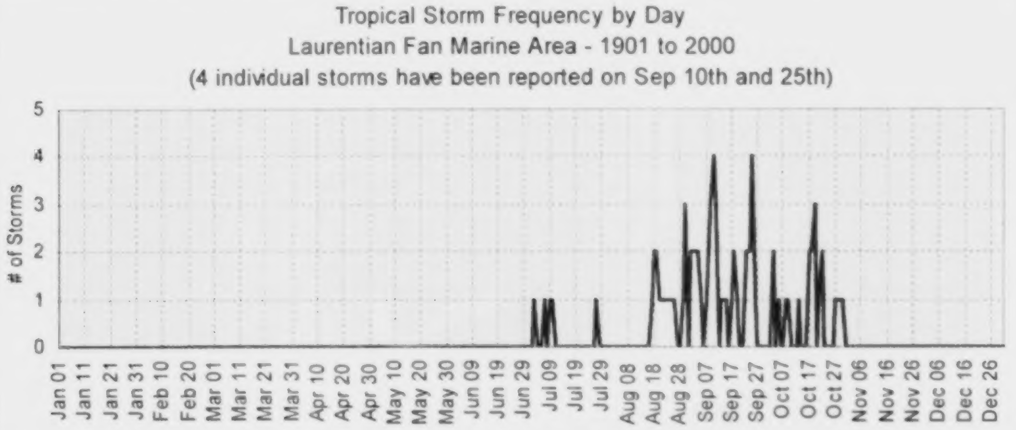
Tropical Storm Frequency by Year
(Laurentian Fan Marine Area - 1901 to 2000)



Note: Storms that span months were counted in both months



Note: Storms will generally span more than one day. The storm is counted in each day



Laurentian Fan – Summary Statistics

100 Yr	TD	TS	G	S	S1	S2	S3	S4	S5	H	<H	ALL	Sys-Spd
#	2	33	14	19	17	6	2	1	0	26	35	61	31.7
Return	50	3	7.1	5.3	5.9	16.7	50	100	NA	3.8	2.9	1.6	
50 Yr	**TD**	**TS**	**G**	**S**	**S1**	**S2**	**S3**	**S4**	**S5**	**H**	**<H**	**ALL**	**Sys-Spd**
#	2	23	9	14	9	2	2	1	0	14	25	39	33.8
Return	25	2.2	5.6	3.6	5.6	25	25	50	NA	3.6	2	1.3	

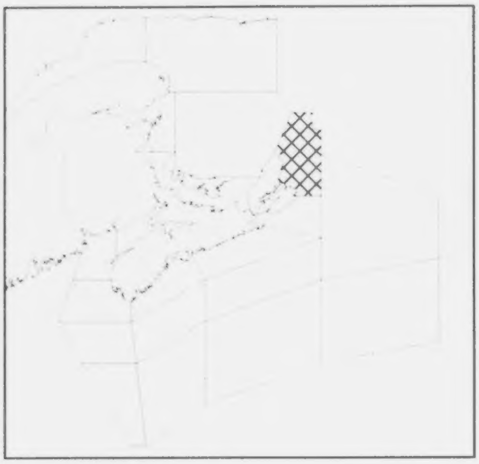
Laurentian Fan – Storm Details

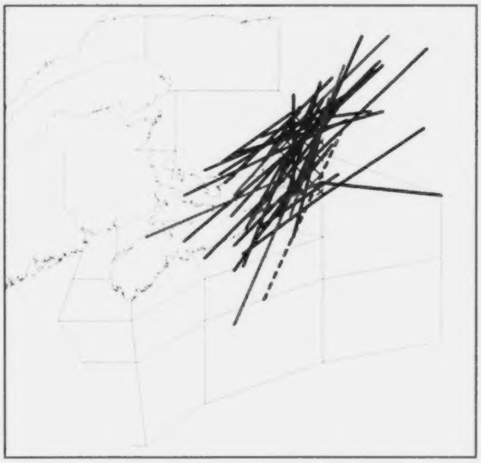
Name	Date	Storm #	MaxWind (kts)	SS Scale	AvgSysSpd (kts)	Pres (mb)	Comment	ENSO
Not Named	Oct 13, 1902	4	40	TS	44.5		E	El Nino
Not Named	Sep 11, 1906	3	80	SS1	33.0			La Nina
Not Named	Sep 10, 1915	3	55	TS	23.1		E	Neutral
Not Named	Sep 24, 1916	10	85	SS2	40.5			La Nina
Not Named	Sep 09, 1923	1	70	SS1	24.8			Neutral

Name	Date	Storm #	MaxWind (kts)	SS Scale	AvgSysSpd (kts)	Pres (mb)	Comment	ENSO
Not Named	Sep 18, 1924	4	40	TS	25.3		E	La Nina
Not Named	Sep 22, 1926	4	65	SS1	12.6		E	Neutral
Not Named	Sep 10, 1932	4	70	SS1	10.9		E	Neutral
Not Named	Aug 29, 1933	9	35	TS	24.6			Neutral
Not Named	Oct 09, 1933	18	70	SS1	39.4		E	Neutral
Not Named	Aug 24, 1935	1	80	SS1	28.0			Neutral
Not Named	Oct 17, 1939	4	95	SS2	40.1			Neutral
Not Named	Sep 23, 1942	5	35	TS	7.6		E	La Nina
Not Named	Aug 26, 1943	3	65	SS1	40.4			Neutral
Not Named	Oct 03, 1943	8	45	TS	25.1			Neutral
Not Named	Jul 09, 1946	2	50	TS	21.4		E	Neutral
Not Named	Sep 01, 1948	3	55	TS	22.2		E	Neutral
Not Named	Sep 15, 1948	6	80	SS1	33.6			Neutral
Not Named	Sep 25, 1948	7	55	TS	33.5		E	Neutral
Not Named	Sep 09, 1949	4	85	SS2	31.0			La Nina
Dog	Sep 13, 1950	4	55	TS	17.4		E	Neutral
George	Oct 05, 1950	7	85	SS2	35.9			Neutral
Baker	Sep 07, 1952	3	75	SS1	43.1	969		Neutral
Dolly	Sep 02, 1954	4	70	SS1	36.2		E	La Nina
Diane	Aug 20, 1955	3	35	TS	28.5		E	La Nina
Betsy	Aug 18, 1956	3	50	TS	26.0		E	La Nina
Frieda	Sep 26, 1957	7	55	TS	17.9		E	El Nino
Becky	Aug 17, 1958	2	25	TD	40.7		E	Neutral
Daisy	Aug 30, 1958	4	55	TS	33.4		E	Neutral
Gerda	Oct 21, 1961	8	40	TS	21.7	994	E	Neutral
Alma	Sep 02, 1962	1	15	TD	50.4		E	Neutral
Ella	Oct 22, 1962	5	65	SS1	42.9			Neutral
Becky	Jul 03, 1966	2	60	TS	19.2			Neutral
Not Named	Sep 25, 1969	10	65	SS1	19.2	985		El Nino
Not Named	Oct 30, 1969	17	50	TS	8.7		E	El Nino
Not Named	Aug 18, 1970	4	60	TS	41.0	992		La Nina
Not Named	Oct 17, 1970	9	90	SS2	49.6	974		La Nina
Arlene	Jul 07, 1971	1	45	TS	28.1	1002		La Nina
Gilda	Oct 27, 1973	8	55	TS	29.7		S	La Nina
Gladys	Oct 03, 1975	7	110	SS3	52.2	950		La Nina
Ella	Sep 04, 1978	6	115	SS4	41.0	956		Neutral
Georges	Sep 08, 1980	7	70	SS1	39.6	993		Neutral
Debby	Sep 18, 1982	5	110	SS3	26.0	954		El Nino
Cesar	Sep 01, 1984	4	40	TS	18.9	998		Neutral
Josephine	Oct 18, 1984	11	50	TS	9.9	994		Neutral
Unnamed	Oct 29, 1991	8	45	TS	15.3	992	E	El Nino
Floyd	Sep 09, 1993	6	65	SS1	38.6	990		Neutral
Chris	Aug 23, 1994	3	45	TS	35.7	1003		Neutral
Felix	Aug 22, 1995	6	50	TS	35.3	987		Neutral
Luis	Sep 10, 1995	12	80	SS1	39.3	966		Neutral
Edouard	Sep 04, 1996	5	50	TS	15.3	997	E	Neutral
Danny	Jul 27, 1997	5	40	TS	46.9	1004	E	El Nino
Bonnie	Aug 30, 1998	2	45	TS	30.3	1000		La Nina
Danielle	Sep 03, 1998	4	70	SS1	23.7	960		La Nina
Earl	Sep 05, 1998	5	50	TS	43.9	990	E	La Nina
Gert	Sep 23, 1999	7	60	TS	25.3	964		La Nina
Irene	Oct 19, 1999	9	80	SS1	77.1	968		La Nina
Florence	Sep 17, 2000	6	55	TS	31.6	995		La Nina
Helene	Sep 25, 2000	8	60	TS	53.3	986		La Nina
Leslie	Oct 08, 2000	12	40	TS	36.9	1003	E	La Nina

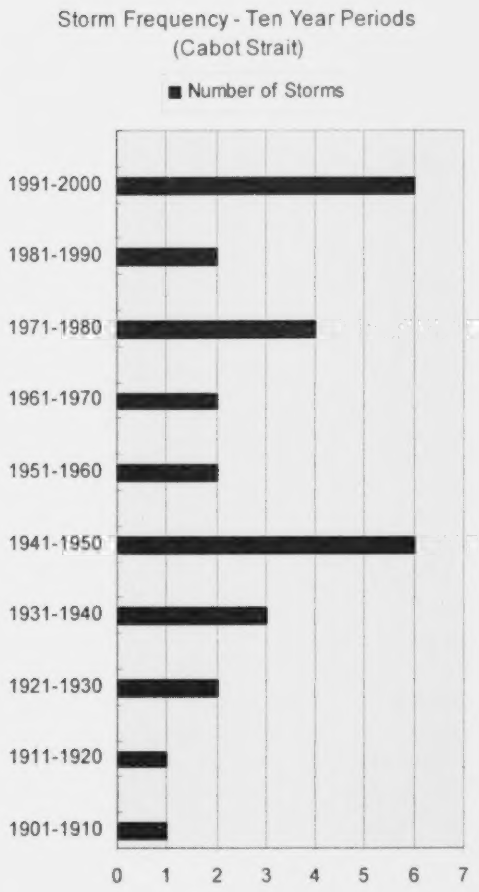
Name	Date	Storm #	MaxWind (kts)	SS Scale	AvgSysSpd (kts)	Pres (mb)	Comment	ENSO
Michael	Oct 19, 2000	13	85	SS2	45.2	965		La Nina

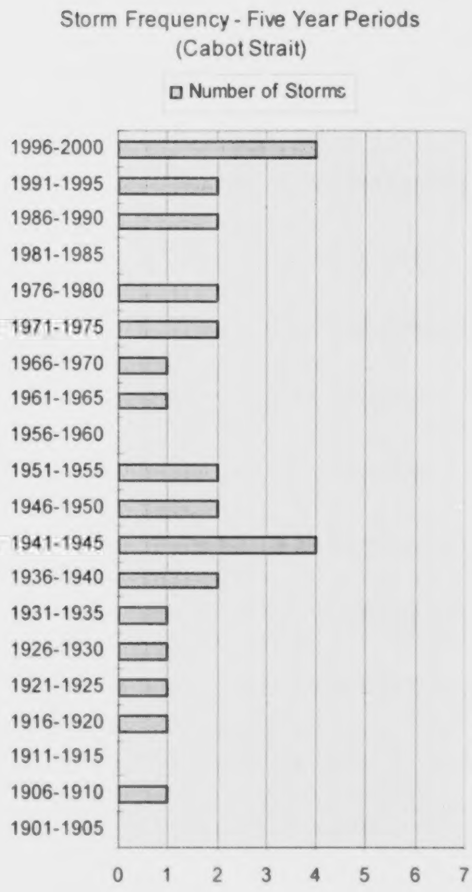
Cabot Strait

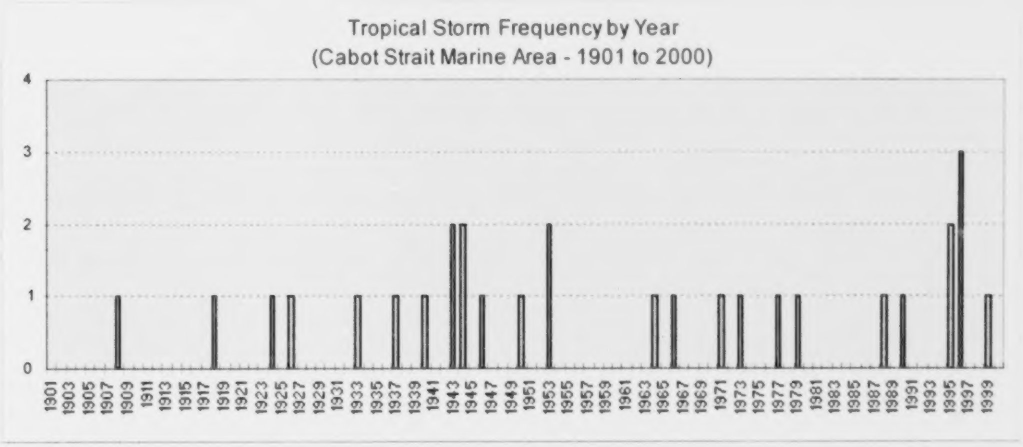




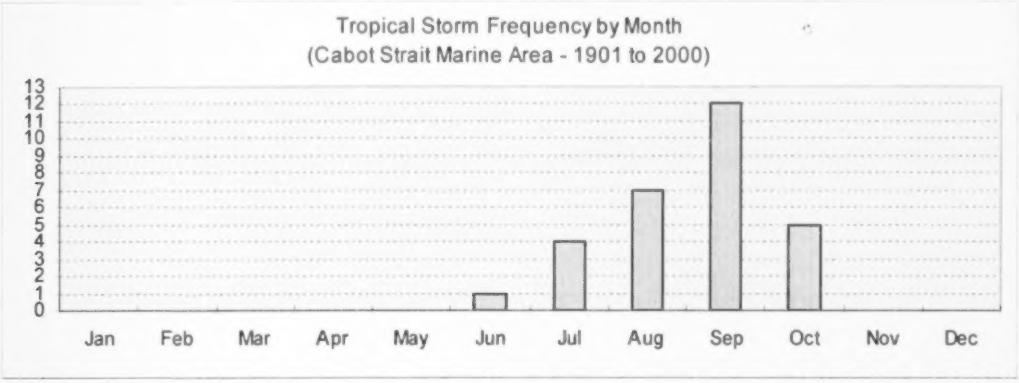
Cabot Strait Marine Area Boundaries:
46°N 59°W due west to Nova Scotia coast then northwestward along coast of Cape Breton to Cape North, then to 48°N 60°W, then eastward along 48°N to west coast of Newfoundland, then south and east along Newfoundland coast to 59°W then due south to 46°N 59°W.


Storm Frequency - Ten Year Periods
(Cabot Strait)

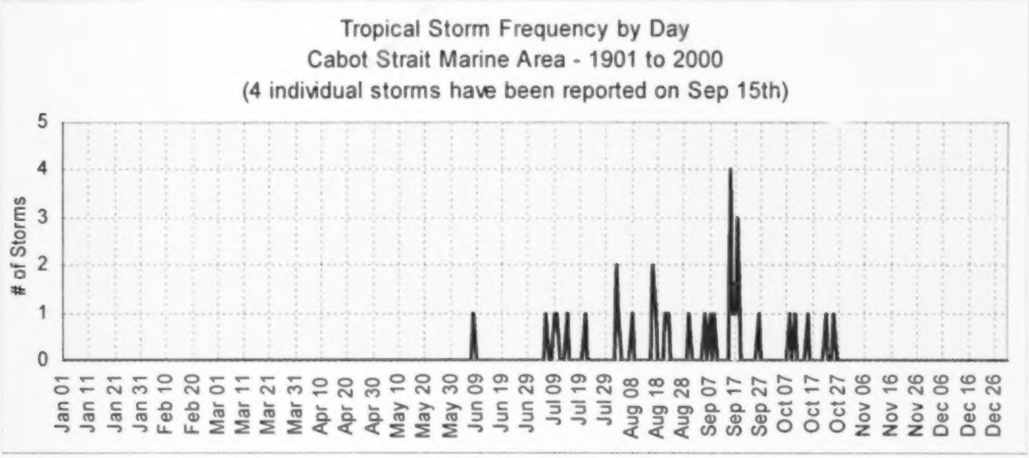

Storm Frequency - Five Year Periods
(Cabot Strait)


Tropical Storm Frequency by Year
(Cabot Strait Marine Area - 1901 to 2000)

Note: Storms that span months were counted in both months



Note: Storms will generally span more than one day. The storm is counted in each day



Cabot Strait – Summary Statistics

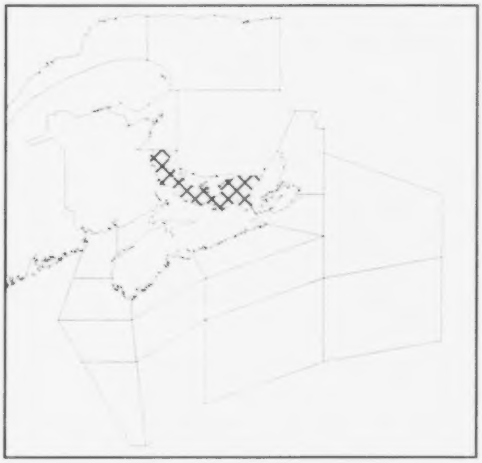
100 Yr	**TD**	**TS**	**G**	**S**	**S1**	**S2**	**S3**	**S4**	**S5**	**H**	**<H**	**ALL**	**Sys-Spd**
#	2	19	8	11	8	0	0	0	0	8	21	29	28.2
Return	50	5.3	12.5	9.1	12.5	NA	NA	NA	NA	12.5	4.8	3.4	
50 Yr	**TD**	**TS**	**G**	**S**	**S1**	**S2**	**S3**	**S4**	**S5**	**H**	**<H**	**ALL**	**Sys-Spd**
#	1	11	3	8	4	0	0	0	0	4	12	16	29.3
Return	50	4.5	16.7	6.3	12.5	NA	NA	NA	NA	12.5	4.2	3.1	

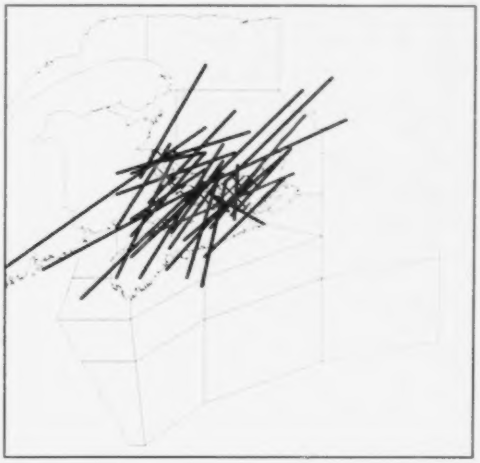
Cabot Strait – Storm Details

Name	**Date**	**Storm #**	**MaxWind (kts)**	**SS Scale**	**AvgSysSpd (kts)**	**Pres (mb)**	**Comment**	**ENSO**
Not Named	Aug 02, 1908	2	75	SS1	23.8		E	La Nina
Not Named	Sep 07, 1918	4	40	TS	20.2		E	El Nino
Not Named	Sep 05, 1924	3	65	SS1	26.8		E	La Nina
Not Named	Aug 08, 1926	2	65	SS1	25.9		E	Neutral
Not Named	Sep 18, 1933	13	55	TS	16.5		E	Neutral

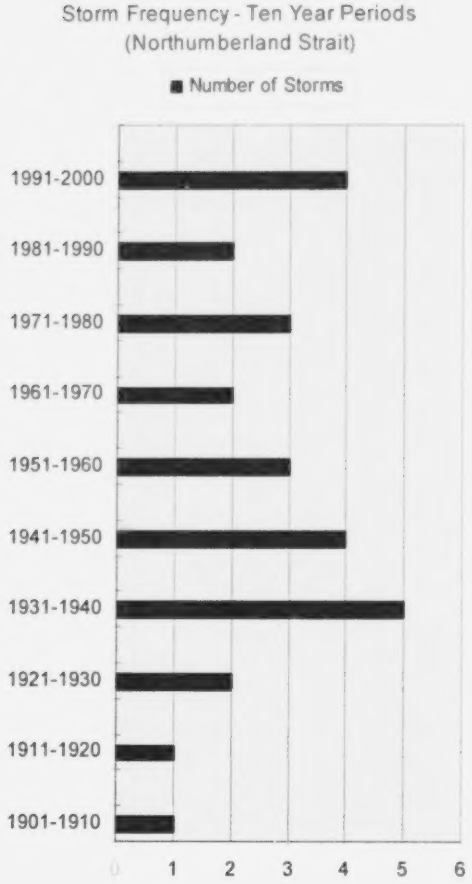
Name	Date	Storm #	MaxWind (kts)	SS Scale	AvgSysSpd (kts)	Pres (mb)	Comment	ENSO
Not Named	Sep 26, 1937	7	70	SS1	34.9		E	Neutral
Not Named	Sep 17, 1940	5	40	TS	12.9			El Nino
Not Named	Sep 09, 1943	4	60	TS	34.7			Neutral
Not Named	Sep 16, 1943	5	35	TS	24.0		E	Neutral
Not Named	Sep 15, 1944	7	35	TS	41.7	982	E	La Nina
Not Named	Oct 22, 1944	11	45	TS	31.2		E	La Nina
Not Named	Sep 15, 1946	4	55	TS	30.8		E	Neutral
Able	Aug 21, 1950	1	30	TD	25.8			Neutral
Barbara	Aug 16, 1953	2	55	TS	35.3		E	Neutral
Not Named	Oct 08, 1953	10	60	TS	25.3		E	Neutral
Dora	Sep 15, 1964	6	55	TS	26.0		E	La Nina
Celia	Jul 21, 1966	3	65	SS1	37.6	998		Neutral
Beth	Aug 16, 1971	3	65	SS1	17.3			La Nina
Alice	Jul 06, 1973	1	60	TS	34.0	991		La Nina
Evelyn	Oct 15, 1977	5	70	SS1	19.0	998		Neutral
Subtrop 1	Oct 25, 1979	9	60	TS	44.0	980	S	Neutral
Chris	Aug 30, 1988	3	25	TD	38.0	1008		La Nina
Bertha	Aug 02, 1990	2	60	TS	24.0	978	E	Neutral
Allison	Jun 08, 1995	1	45	TS	22.9	993	E	Neutral
Barry	Jul 09, 1995	2	50	TS	22.7	991		Neutral
Bertha	Jul 14, 1996	2	50	TS	35.2	995	E	Neutral
Hortense	Sep 15, 1996	8	65	SS1	23.5	980		Neutral
Josephine	Oct 10, 1996	10	45	TS	36.4	985	E	Neutral
Floyd	Sep 18, 1999	6	35	TS	27.5	992	E	La Nina

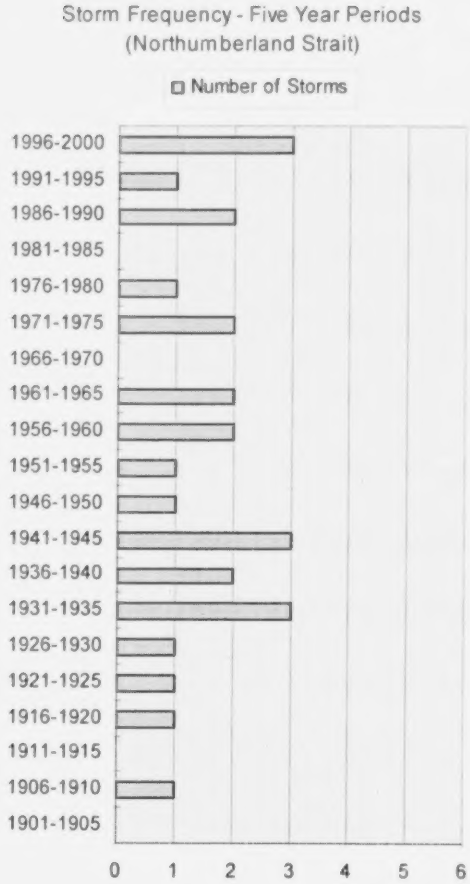
Northumberland Strait

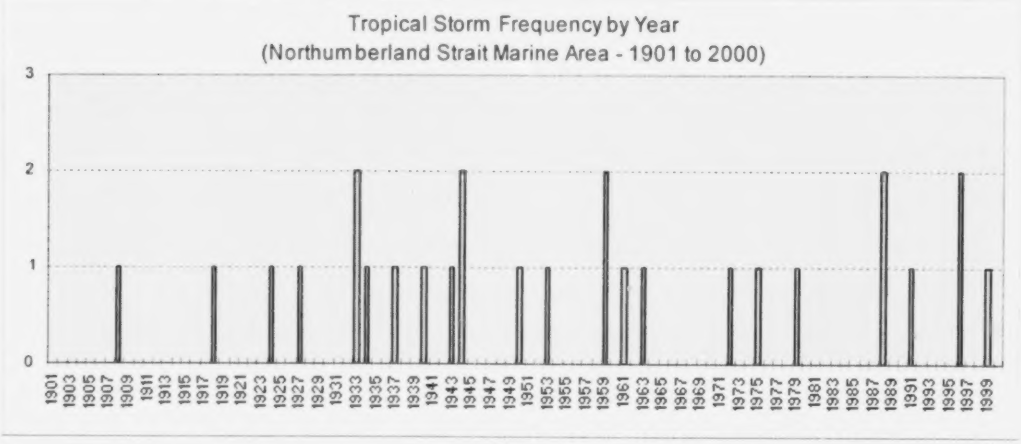




Northumberland Strait Marine Area Boundaries:
East Point due east to west coast of Cape Breton, then westward along coast of Nova Scotia and New Brunswick to Point Escuminac, then to North Point, PEI, then along south coast of Prince Edward Island to East Point.


Storm Frequency - Ten Year Periods
(Northumberland Strait)
■ Number of Storms
1991-2000
1981-1990
1971-1980
1961-1970
1951-1960
1941-1950
1931-1940
1921-1930
1911-1920
1901-1910
0
1
2
3
4
5
6


Storm Frequency - Five Year Periods
(Northumberland Strait)
☐ Number of Storms
1996-2000
1991-1995
1986-1990
1981-1985
1976-1980
1971-1975
1966-1970
1961-1965
1956-1960
1951-1955
1946-1950
1941-1945
1936-1940
1931-1935
1926-1930
1921-1925
1916-1920
1911-1915
1906-1910
1901-1905
0
1
2
3
4
5
6


Tropical Storm Frequency by Year
(Northumberland Strait Marine Area - 1901 to 2000)
3
2
1
0
1901
1903
1905
1907
1909
1911
1913
1915
1917
1919
1921
1923
1925
1927
1929
1931
1933
1935
1937
1939
1941
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1997
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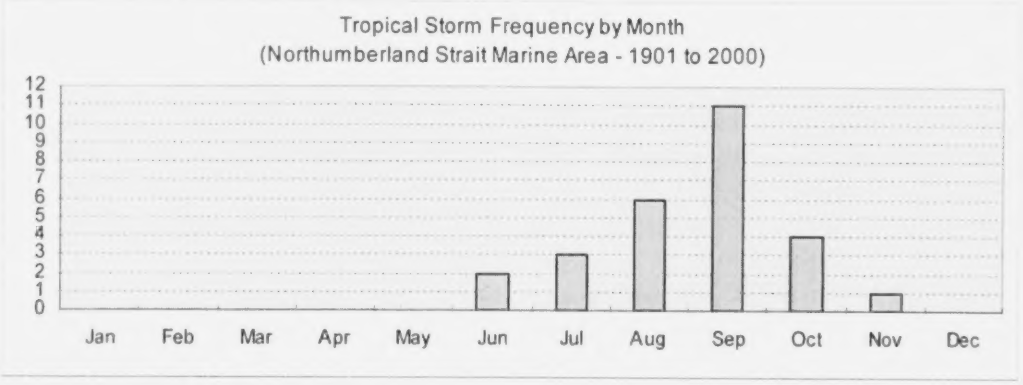
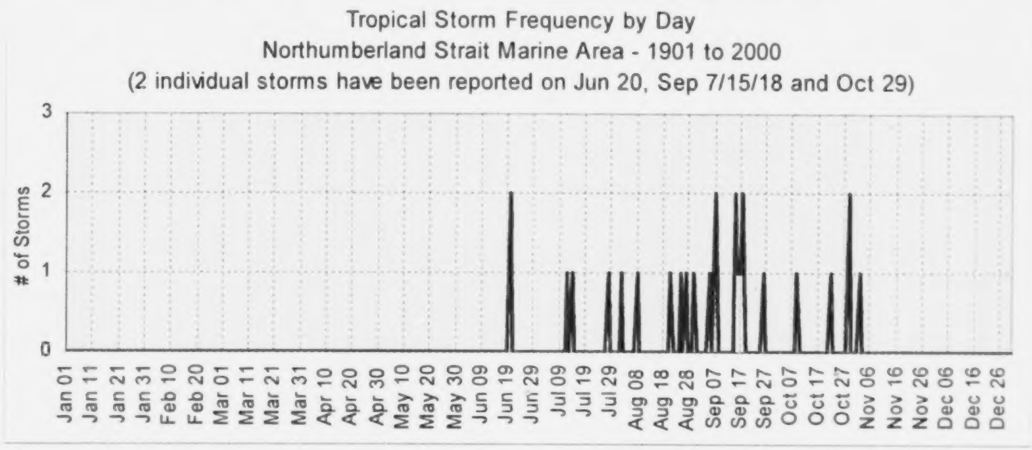
Note: Storms that span months were counted in both months



Note: Storms will generally span more than one day. The storm is counted in each day



Northumberland Strait – Summary Statistics

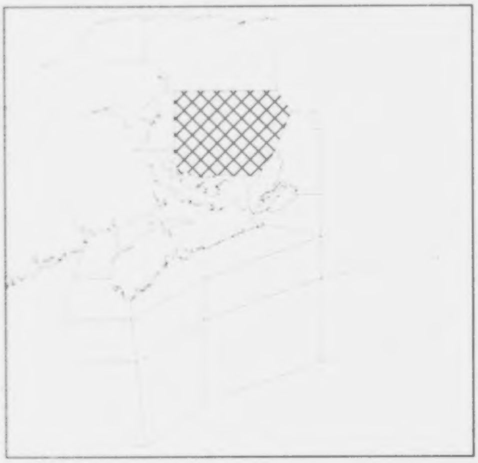
100 Yr	**TD**	**TS**	**G**	**S**	**S1**	**S2**	**S3**	**S4**	**S5**	**H**	**<H**	**ALL**	**Sys-Spd**
#	1	21	12	9	2	3	0	0	0	5	22	27	28.9
Return	100	4.8	8.3	11.1	50	33.3	NA	NA	NA	20	4.5	3.7	
50 Yr	**TD**	**TS**	**G**	**S**	**S1**	**S2**	**S3**	**S4**	**S5**	**H**	**<H**	**ALL**	**Sys-Spd**
#	1	12	6	6	0	1	0	0	0	1	13	14	29.4
Return	50	4.2	8.3	8.3	NA	50	NA	NA	NA	50	3.8	3.6	

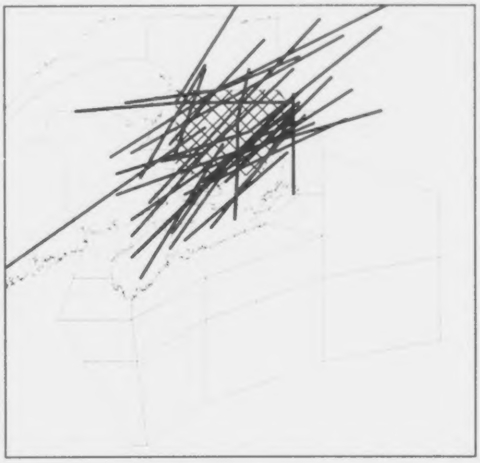
Northumberland Strait – Storm Details

Name	**Date**	**Storm #**	**MaxWind (kts)**	**SS Scale**	**AvgSysSpd (kts)**	**Pres (mb)**	**Comment**	**ENSO**
Not Named	Aug 02, 1908	2	75	SS1	26.8		E	La Nina
Not Named	Sep 07, 1918	4	45	TS	20.7		E	El Nino
Not Named	Aug 27, 1924	2	85	SS2	40.4		E	La Nina
Not Named	Aug 25, 1927	1	90	SS2	56.5		E	Neutral
Not Named	Sep 18, 1933	13	60	TS	19.1		E	Neutral

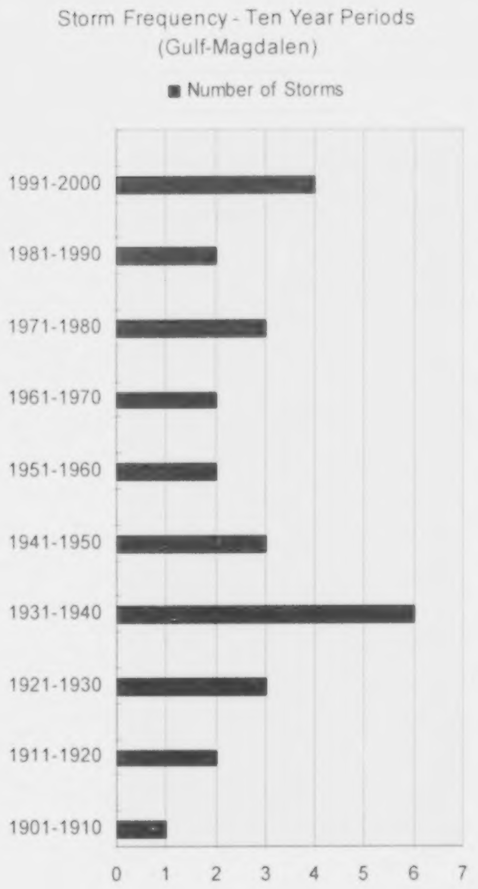
Name	Date	Storm #	MaxWind (kts)	SS Scale	AvgSysSpd (kts)	Pres (mb)	Comment	ENSO
Not Named	Oct 29, 1933	20	55	TS	13.0		E	Neutral
Not Named	Jun 20, 1934	2	40	TS	23.6		E	Neutral
Not Named	Sep 26, 1937	7	75	SS1	30.3		E	Neutral
Not Named	Sep 17, 1940	5	55	TS	22.0			El Nino
Not Named	Sep 16, 1943	5	35	TS	21.2		E	Neutral
Not Named	Sep 15, 1944	7	35	TS	40.1		E	La Nina
Not Named	Oct 22, 1944	11	45	TS	32.2		E	La Nina
Able	Aug 21, 1950	1	35	TS	24.7			Neutral
Carol	Sep 08, 1953	4	60	TS	30.8		E	Neutral
Not Named	Jun 20, 1959	3	60	TS	10.1		E	Neutral
Cindy	Jul 12, 1959	4	45	TS	29.6		E	Neutral
Not Named	Sep 15, 1961	6	35	TS	60.6			Neutral
Ginny	Oct 29, 1963	8	90	SS2	33.1		E	El Nino
Carrie	Sep 05, 1972	4	40	TS	8.9	1005	E	El Nino
Blanche	Jul 28, 1975	2	60	TS	37.5	988	E	La Nina
David	Sep 07, 1979	4	50	TS	32.3	988	E	Neutral
Alberto	Aug 08, 1988	1	35	TS	26.5	1004		La Nina
Chris	Aug 30, 1988	3	25	TD	38.0	1008		La Nina
Unnamed	Nov 02, 1991	8	50	TS	24.1	996		El Nino
Bertha	Jul 14, 1996	2	50	TS	29.3	995	E	Neutral
Josephine	Oct 09, 1996	10	45	TS	29.0	984	E	Neutral
Floyd	Sep 18, 1999	6	35	TS	21.1	990	E	La Nina

Gulf-Magdalen





Gulf-Magdalen Marine Area Boundaries:
East Point, PEI due east to west coast of Cape Breton, then north to Cape North, then to 48°N 60°W then to 48.5°N 60.5°W then due west along 48.5°N to 48.5°N 64°W, then south to North Point, PEI, then along north shore of Prince Edward Island to East Point.


Storm Frequency - Ten Year Periods
(Gulf-Magdalen)
■ Number of Storms
1991-2000
1981-1990
1971-1980
1961-1970
1951-1960
1941-1950
1931-1940
1921-1930
1911-1920
1901-1910
0
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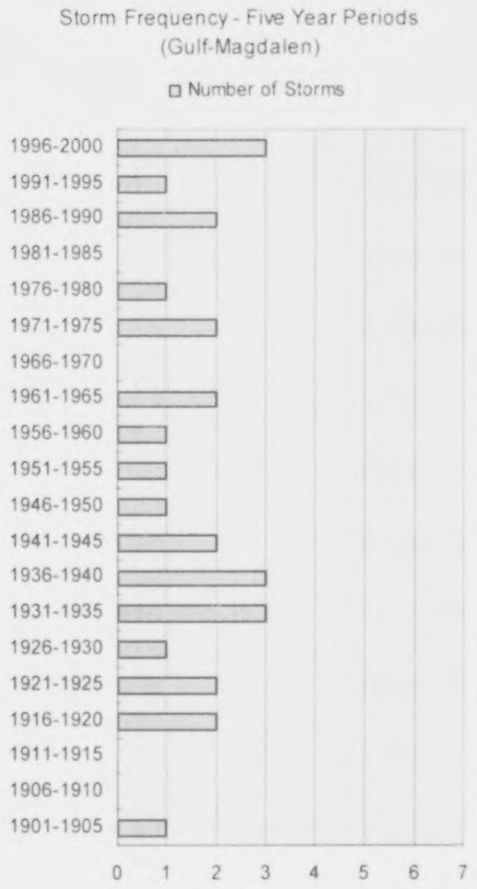
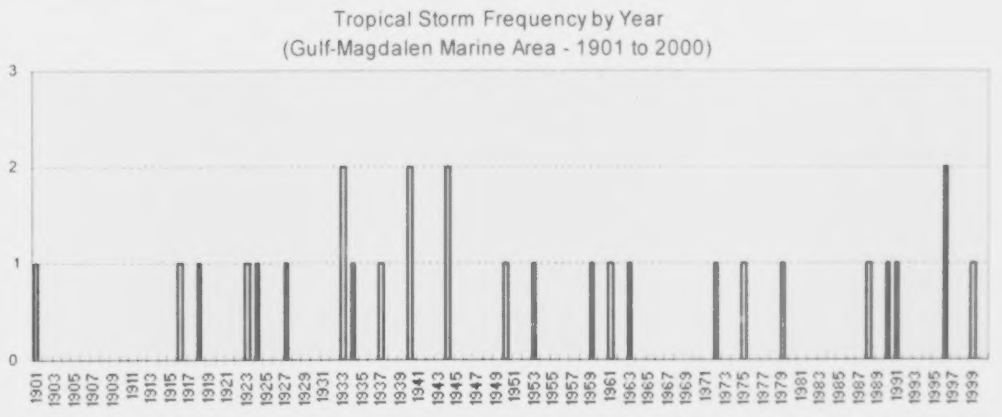
2
3
4
5
6
7


Storm Frequency - Five Year Periods
(Gulf-Magdalen)
□ Number of Storms
1996-2000
1991-1995
1986-1990
1981-1985
1976-1980
1971-1975
1966-1970
1961-1965
1956-1960
1951-1955
1946-1950
1941-1945
1936-1940
1931-1935
1926-1930
1921-1925
1916-1920
1911-1915
1906-1910
1901-1905
0
1
2
3
4
5
6
7


Tropical Storm Frequency by Year
(Gulf-Magdalen Marine Area - 1901 to 2000)
3
2
1
0
1901
1903
1905
1907
1909
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1913
1915
1917
1919
1921
1923
1925
1927
1929
1931
1933
1935
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1941
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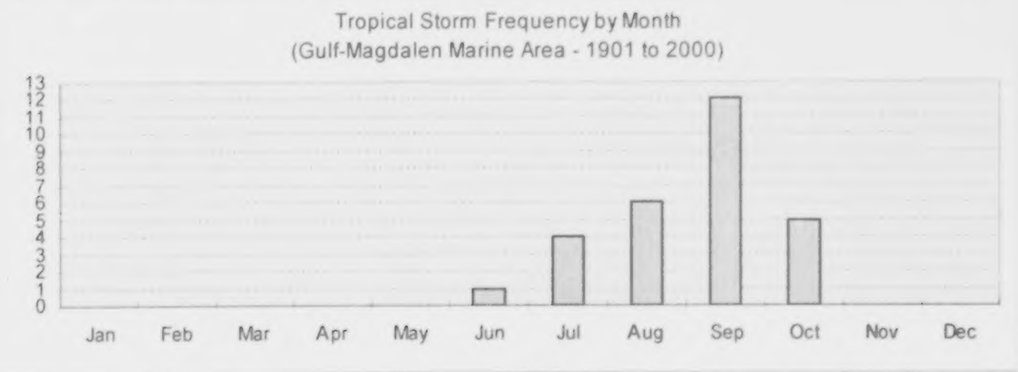
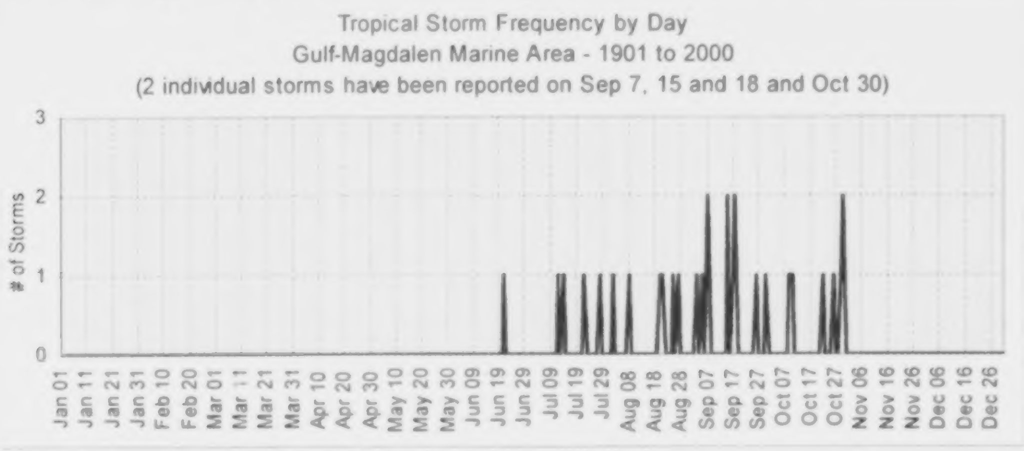
Note: Storms that span months were counted in both months


Tropical Storm Frequency by Month
(Gulf-Magdalen Marine Area - 1901 to 2000)

Note: Storms will generally span more than one day. The storm is counted in each day


Tropical Storm Frequency by Day
Gulf-Magdalen Marine Area - 1901 to 2000
(2 individual storms have been reported on Sep 7, 15 and 18 and Oct 30)

Gulf-Magdalen – Summary Statistics

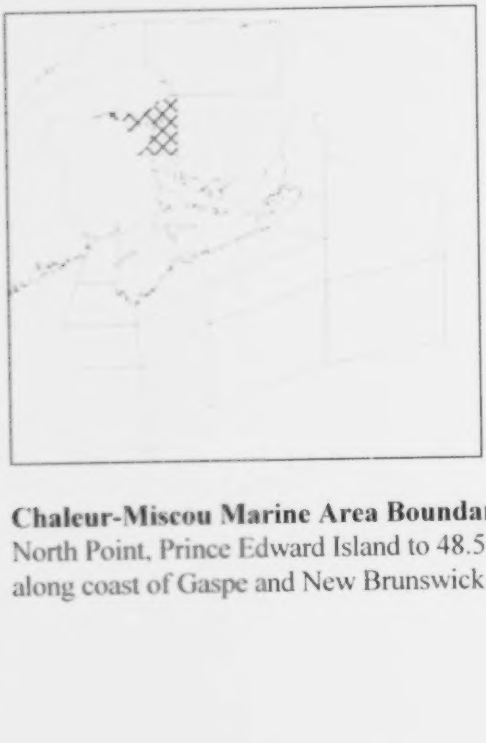
100 Yr	**TD**	**TS**	**G**	**S**	**S1**	**S2**	**S3**	**S4**	**S5**	**H**	**<H**	**ALL**	**Sys-Spd**
#	3	21	13	8	3	1	0	0	0	4	24	28	29.0
Return	33.3	4.8	7.7	12.5	33.3	100	NA	NA	NA	25	4.2	3.6	
50 Yr	**TD**	**TS**	**G**	**S**	**S1**	**S2**	**S3**	**S4**	**S5**	**H**	**<H**	**ALL**	**Sys-Spd**
#	0	12	7	5	1	0	0	0	0	1	12	13	30.3
Return	NA	4.2	7.1	10	50	NA	NA	NA	NA	50	4.2	3.8	

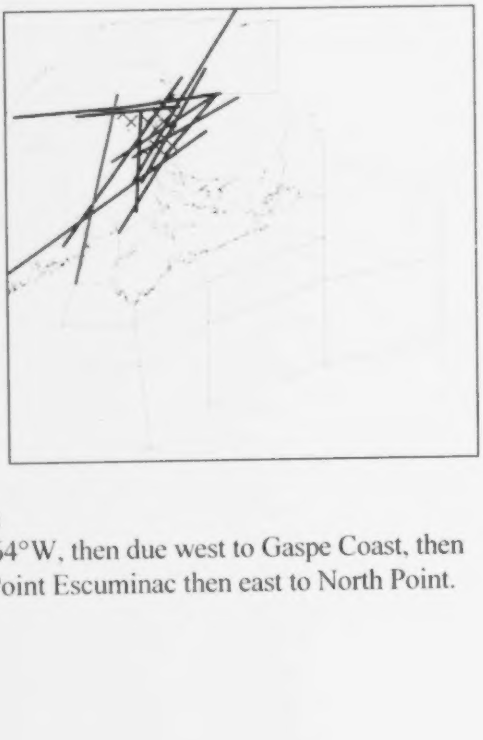
Gulf-Magdalen – Storm Details

Name	Date	Storm #	MaxWind (kts)	SS Scale	AvgSysSpd (kts)	Pres (mb)	Comment	ENSO
Not Named	Sep 30, 1901	8	30	TD	24.4		E	Neutral
Not Named	Jul 22, 1916	2	45	TS	40.6			La Nina
Not Named	Sep 07, 1918	4	45	TS	20.5		E	El Nino
Not Named	Oct 26, 1923	4	30	TD	20.5		E	Neutral
Not Named	Aug 27, 1924	2	80	SS1	29.4		E	La Nina

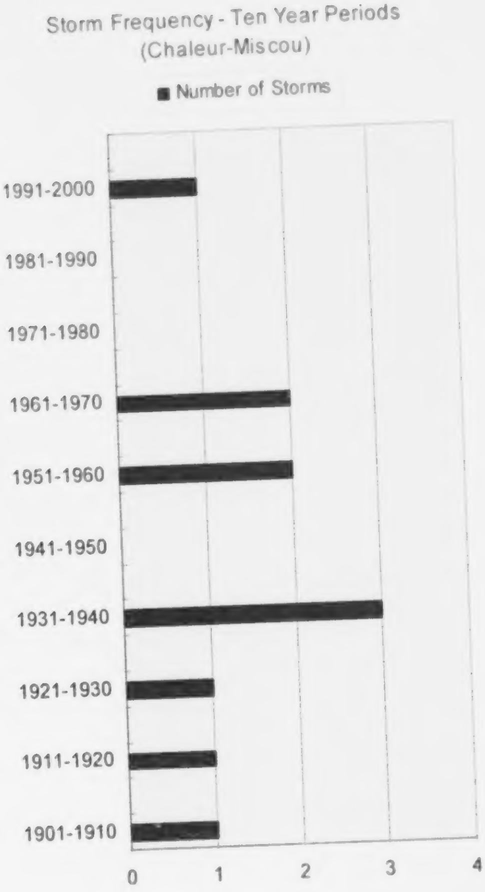
Name	Date	Storm #	MaxWind (kts)	SS Scale	AvgSysSpd (kts)	Pres (mb)	Comment	ENSO
Not Named	Aug 25, 1927	1	90	SS2	56.5		E	Neutral
Not Named	Sep 18, 1933	13	60	TS	17.8		E	Neutral
Not Named	Oct 29, 1933	20	55	TS	12.1		E	Neutral
Not Named	Jun 21, 1934	2	35	TS	16.4		E	Neutral
Not Named	Sep 26, 1937	7	70	SS1	34.9		E	Neutral
Not Named	Sep 03, 1940	4	35	TS	32.4			El Nino
Not Named	Sep 17, 1940	5	55	TS	15.2			El Nino
Not Named	Sep 15, 1944	7	35	TS	41.7	982	E	La Nina
Not Named	Oct 22, 1944	11	45	TS	32.2		E	La Nina
Able	Aug 21, 1950	1	30	TD	25.1			Neutral
Carol	Sep 08, 1953	4	60	TS	30.8		E	Neutral
Cindy	Jul 12, 1959	4	45	TS	29.4		E	Neutral
Not Named	Sep 15, 1961	6	35	TS	60.6			Neutral
Ginny	Oct 30, 1963	8	80	SS1	21.1		E	El Nino
Carrie	Sep 05, 1972	4	40	TS	10.4		E	El Nino
Blanche	Jul 28, 1975	2	60	TS	37.5	988	E	La Nina
David	Sep 07, 1979	4	50	TS	35.5	988	E	Neutral
Alberto	Aug 08, 1988	1	35	TS	27.5	1004		La Nina
Bertha	Aug 02, 1990	2	60	TS	24.0	978	E	Neutral
Bob	Aug 20, 1991	2	45	TS	27.7	998		El Nino
Bertha	Jul 14, 1996	2	50	TS	32.3	995	E	Neutral
Josephine	Oct 09, 1996	10	45	TS	32.7	984	E	Neutral
Floyd	Sep 18, 1999	6	35	TS	24.3	990	E	La Nina

Chaleur-Miscou





Chaleur-Miscou Marine Area Boundaries:
North Point, Prince Edward Island to 48.5°N 64°W, then due west to Gaspe Coast, then along coast of Gaspe and New Brunswick to Point Escuminac then east to North Point.


Storm Frequency - Ten Year Periods
(Chaleur-Miscou)
■ Number of Storms
1991-2000
1981-1990
1971-1980
1961-1970
1951-1960
1941-1950
1931-1940
1921-1930
1911-1920
1901-1910
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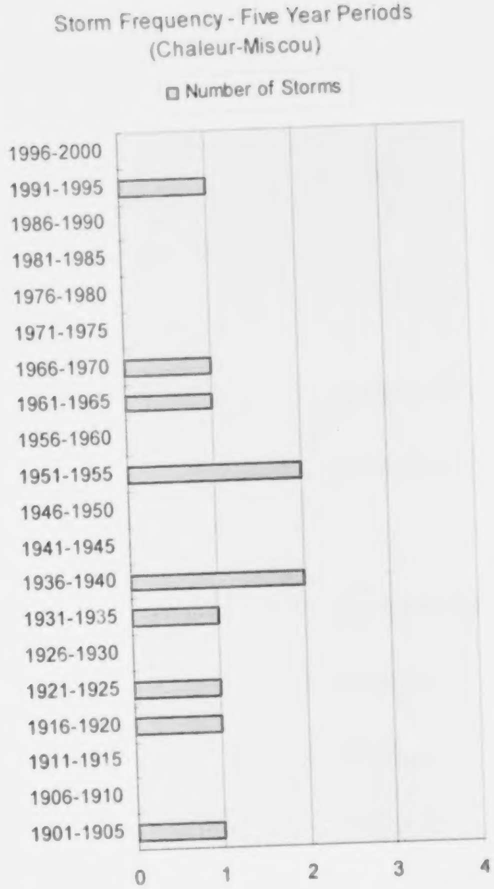
Storm Frequency - Five Year Periods
(Chaleur-Miscou)
☐ Number of Storms
1996-2000
1991-1995
1986-1990
1981-1985
1976-1980
1971-1975
1966-1970
1961-1965
1956-1960
1951-1955
1946-1950
1941-1945
1936-1940
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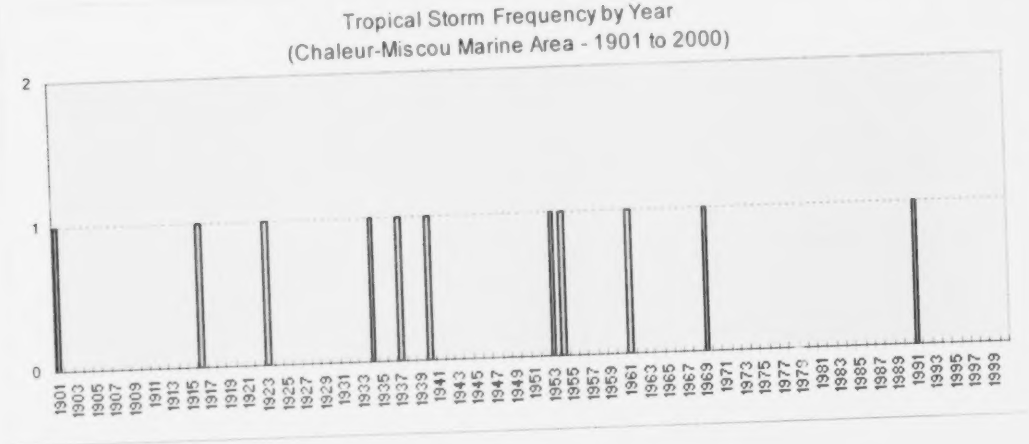
Tropical Storm Frequency by Year
(Chaleur-Miscou Marine Area - 1901 to 2000)
2
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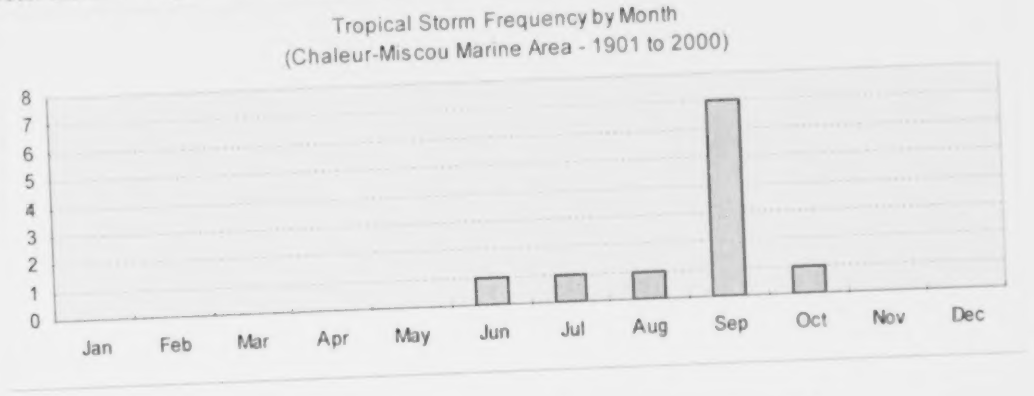
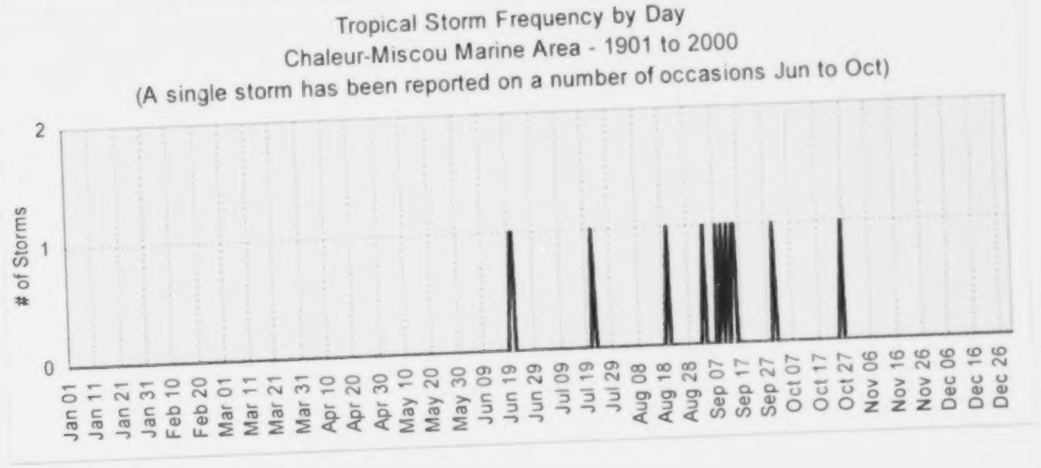
Note: Storms that span months were counted in both months


Tropical Storm Frequency by Month
(Chaleur-Miscou Marine Area - 1901 to 2000)

Note: Storms will generally span more than one day. The storm is counted in each day


Tropical Storm Frequency by Day
Chaleur-Miscou Marine Area - 1901 to 2000
(A single storm has been reported on a number of occasions Jun to Oct)

Chaleur-Miscou – Summary Statistics

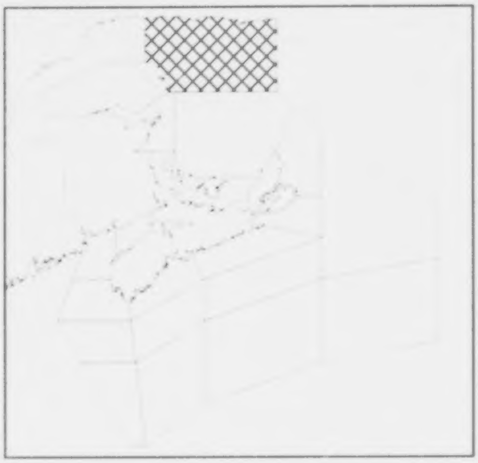
100 Yr	**TD**	**TS**	**G**	**S**	**S1**	**S2**	**S3**	**S4**	**S5**	**H**	**<H**	**ALL**	**Sys-Spd**
#	2	7	6	1	1	1	0	0	0	2	9	11	32.9
Return	50	14.3	16.7	100	100	100	NA	NA	NA	50	11.1	9.1	
50 Yr	**TD**	**TS**	**G**	**S**	**S1**	**S2**	**S3**	**S4**	**S5**	**H**	**<H**	**ALL**	**Sys-Spd**
#	0	3	2	1	1	1	0	0	0	2	3	5	42.9
Return	NA	16.7	25	50	50	50	NA	NA	NA	25	16.7	10	

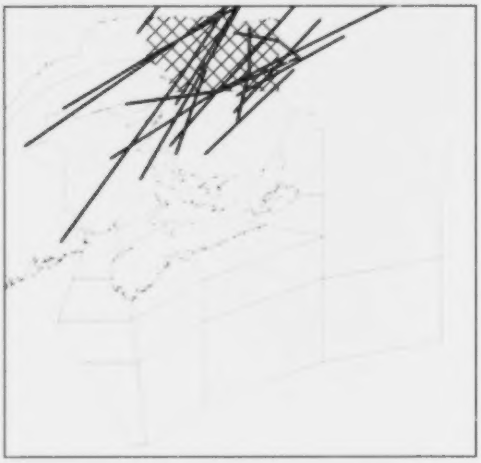
Chaleur-Miscou – Storm Details

Name	**Date**	**Storm #**	**MaxWind (kts)**	**SS Scale**	**AvgSysSpd (kts)**	**Pres (mb)**	**Comment**	**ENSO**
Not Named	Sep 30, 1901	8	25	TD	23.5		E	Neutral
Not Named	Jul 22, 1916	2	45	TS	29.0			La Nina
Not Named	Oct 26, 1923	4	25	TD	23.5		E	Neutral
Not Named	Jun 20, 1934	2	40	TS	20.3		E	Neutral
Not Named	Sep 14, 1937	4	35	TS	24.1			Neutral

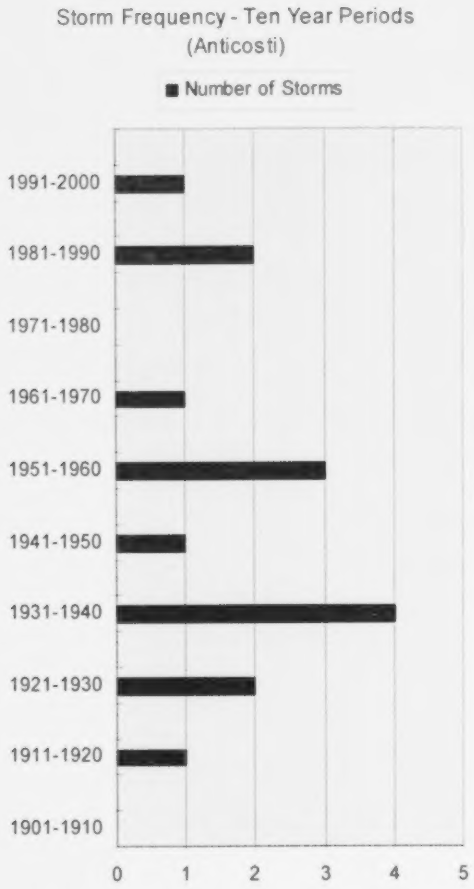
Name	Date	Storm #	MaxWind (kts)	SS Scale	AvgSysSpd (kts)	Pres (mb)	Comment	ENSO
Not Named	Sep 03, 1940	4	45	TS	26.6			El Nino
Carol	Sep 08, 1953	4	60	TS	30.8		E	Neutral
Edna	Sep 12, 1954	5	65	SS1	48.9		E	La Nina
Not Named	Sep 15, 1961	6	35	TS	60.6			Neutral
Gerda	Sep 10, 1969	7	95	SS2	46.2	979		El Nino
Bob	Aug 20, 1991	2	45	TS	28.0	998		El Nino

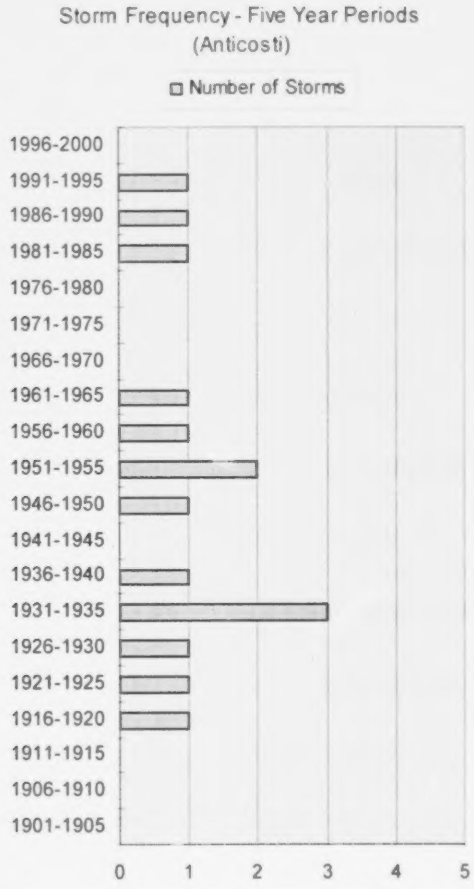
Anticosti

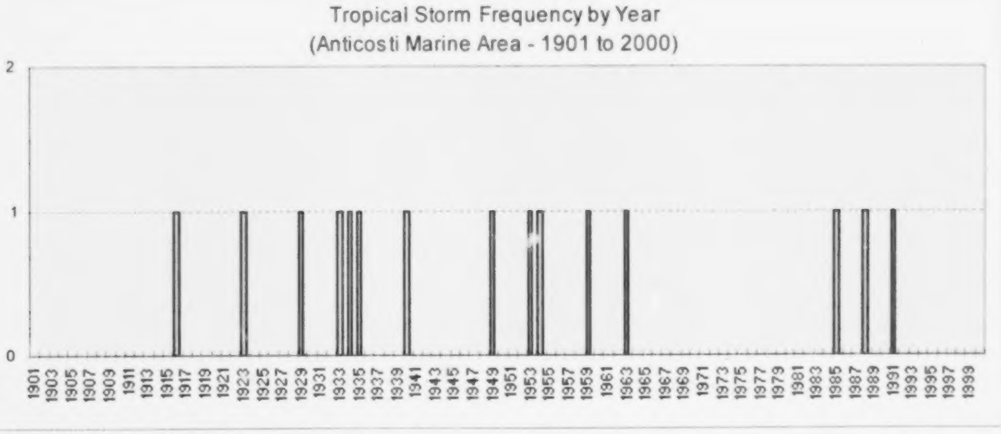




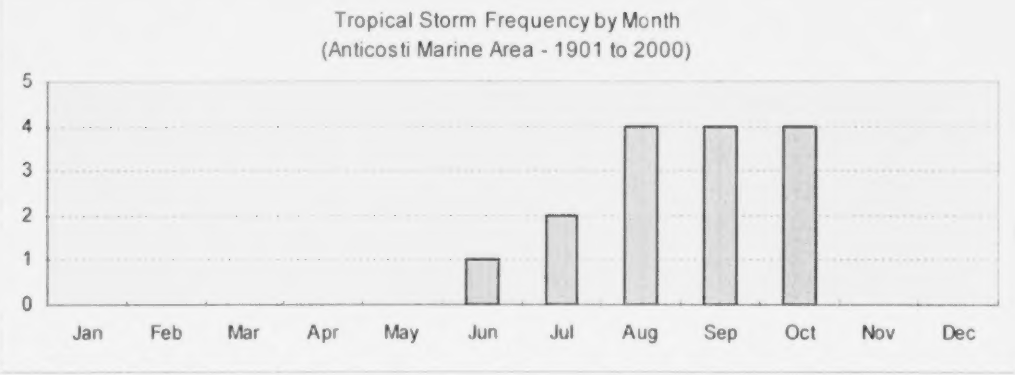
Anticosti Marine Area Boundaries:
48.5°N 60.5°W due west along 48.5°N to Gaspe coast, then northwestward along coast to longitude 65°W, then due north along longitude 65°W to Quebec north shore, then eastward along north shore to longitude 60.5°W then due south to 48.5°N 60.6°W


Storm Frequency - Ten Year Periods
(Anticosti)

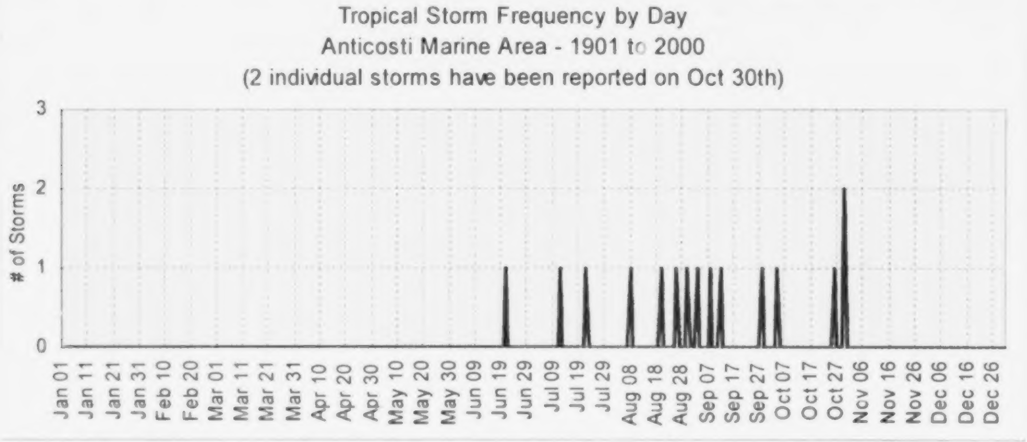

Storm Frequency - Five Year Periods
(Anticosti)


Tropical Storm Frequency by Year
(Anticosti Marine Area - 1901 to 2000)

Note: Storms that span months were counted in both months


Tropical Storm Frequency by Month
(Anticosti Marine Area - 1901 to 2000)

Note: Storms will generally span more than one day. The storm is counted in each day


Tropical Storm Frequency by Day
Anticosti Marine Area - 1901 to 2000
(2 individual storms have been reported on Oct 30th)

Anticosti Marine – Summary Statistics

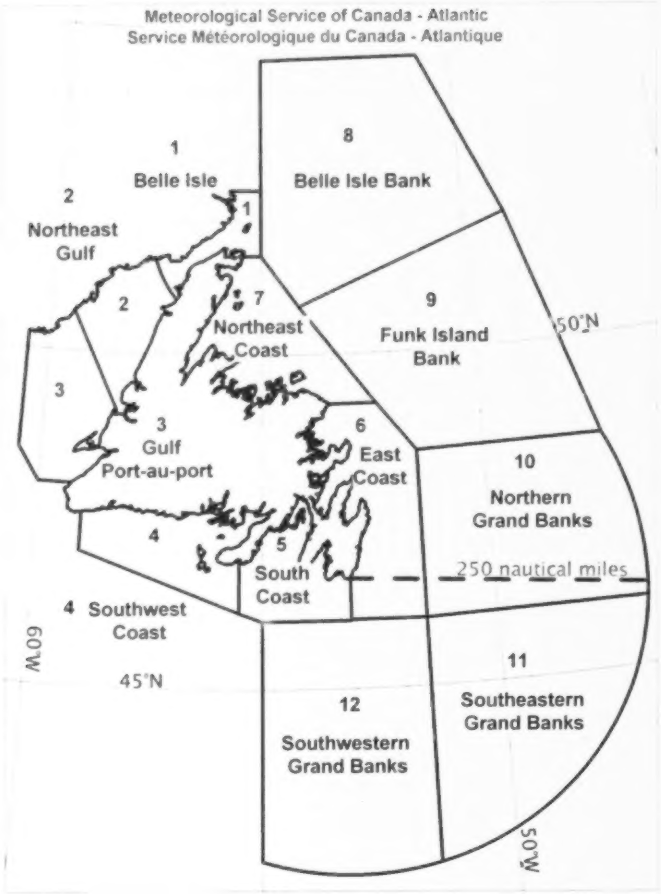
100 Yr	**TD**	**TS**	**G**	**S**	**S1**	**S2**	**S3**	**S4**	**S5**	**H**	**<H**	**ALL**	**Sys-Spd**
#	3	10	8	2	2	0	0	0	0	2	13	15	28.4
Return	33.3	10	12.5	50	50	NA	NA	NA	NA	50	7.7	6.7	
50 Yr	**TD**	**TS**	**G**	**S**	**S1**	**S2**	**S3**	**S4**	**S5**	**H**	**<H**	**ALL**	**Sys-Spd**
#	0	5	3	2	2	0	0	0	0	2	5	7	29.5
Return	NA	10	16.7	25	25	NA	NA	NA	NA	25	10	7.1	

Anticosti Marine – Storm Details

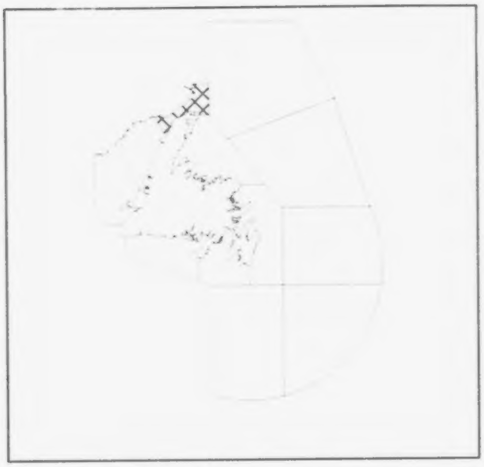
Name	**Date**	**Storm #**	**MaxWind (kts)**	**SS Scale**	**AvgSysSpd (kts)**	**Pres (mb)**	**Comment**	**ENSO**
Not Named	Jul 22, 1916	2	45	TS	40.6			La Nina
Not Named	Oct 26, 1923	4	30	TD	20.5		E	Neutral
Not Named	Oct 04, 1929	2	25	TD	62.0		E	El Nino
Not Named	Oct 30, 1933	20	45	TS	11.1		E	Neutral
Not Named	Jun 21, 1934	2	35	TS	16.4		E	Neutral

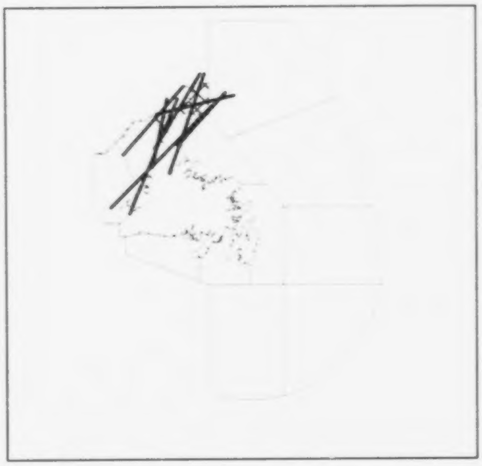
Name	Date	Storm #	MaxWind (kts)	SS Scale	AvgSysSpd (kts)	Pres (mb)	Comment	ENSO
Not Named	Aug 26, 1935	1	40	TS	8.0		E	Neutral
Not Named	Sep 03, 1940	4	35	TS	32.4			El Nino
Not Named	Aug 30, 1949	2	30	TD	27.9		E	La Nina
Carol	Sep 08, 1953	4	60	TS	30.6		E	Neutral
Edna	Sep 12, 1954	5	65	SS1	44.8		E	La Nina
Cindy	Jul 12, 1959	4	35	TS	29.1		E	Neutral
Ginny	Oct 30, 1963	8	80	SS1	21.1		E	El Nino
Gloria	Sep 28, 1985	7	50	TS	25.3	987	E	Neutral
Alberto	Aug 08, 1988	1	35	TS	28.4	1006		La Nina
Bob	Aug 20, 1991	2	40	TS	27.4	1003	E	El Nino

Map – Newfoundland Marine Areas

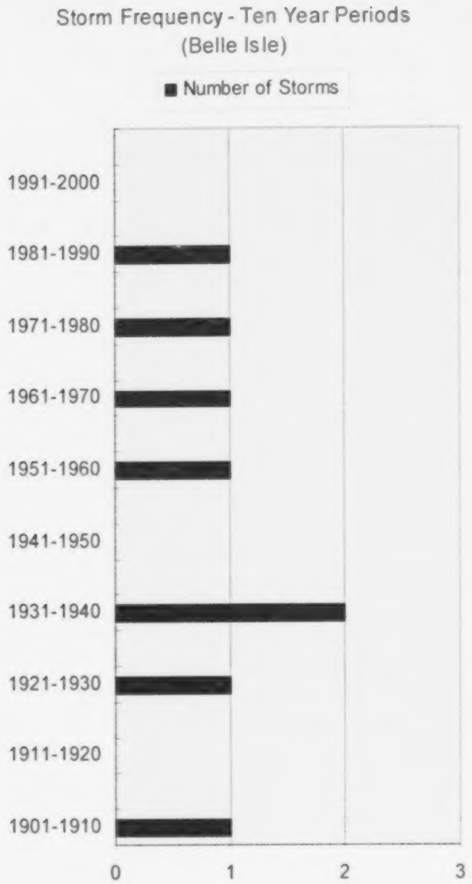

Meteorological Service of Canada - Atlantic
Service Météorologique du Canada - Atlantique
1
Belle Isle
8
Belle Isle Bank
2
Northeast Gulf
1
2
7
Northeast Coast
9
Funk Island Bank
50°N
3
3
Gulf
Port-au-port
6
East Coast
10
Northern Grand Banks
4
5
South Coast
250 nautical miles
4 Southwest Coast
60°W
45°N
11
Southeastern Grand Banks
12
Southwestern Grand Banks
50°W

Belle Isle

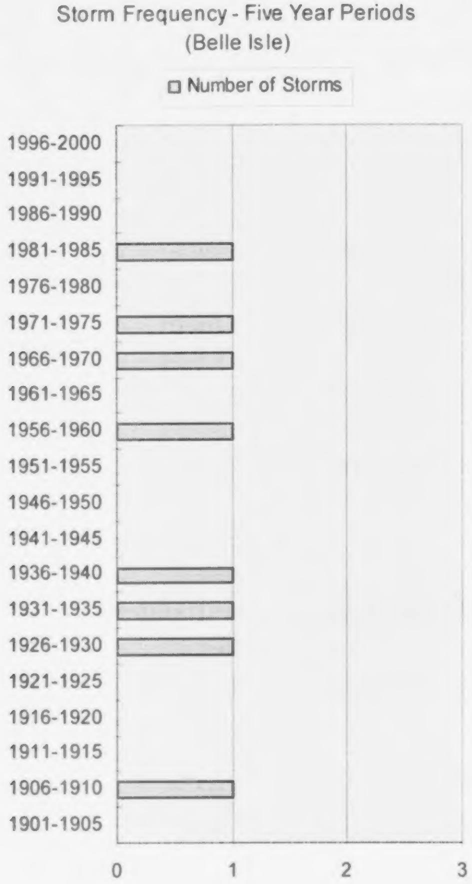




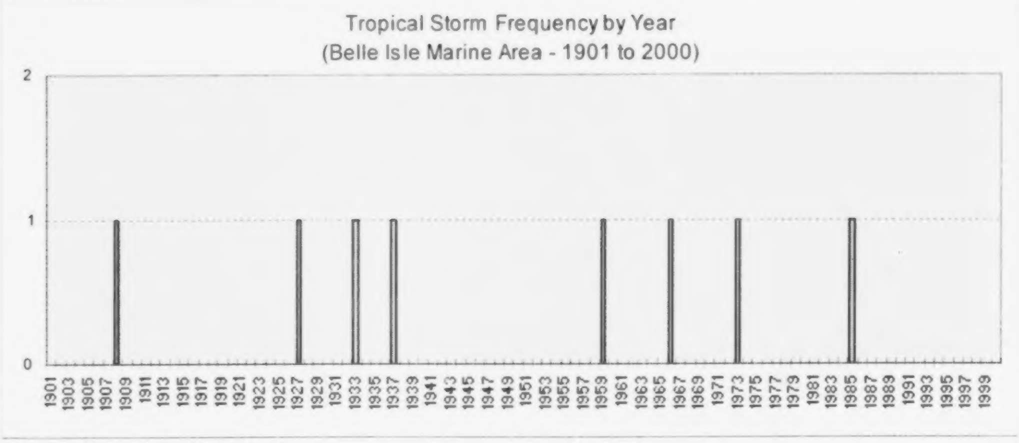
Belle Isle Marine Area Boundaries:
St. Lunaire (just south of Cape Bauld) east to 51.5°N 55°W then due north to 52.5°N 55°W then due west to the Labrador coast, then southwestward along the coast to the intersection of the Quebec north shore and an arc of a circle of 90 nautical miles radius, centred at Belle Isle, then along that arc to the west coast of Newfoundland, then northeastward along the west coast of Newfoundland to St. Lunaire.



Storm Frequency - Ten Year Periods (Belle Isle)

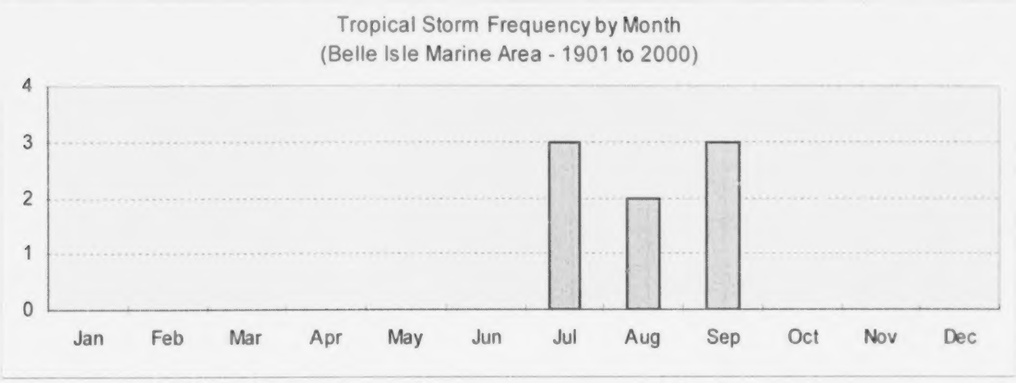


Storm Frequency - Five Year Periods (Belle Isle)

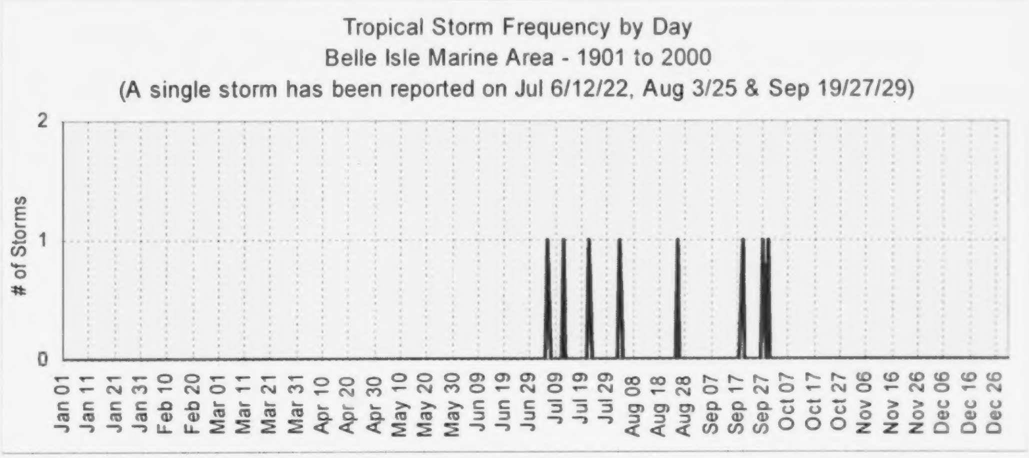


Tropical Storm Frequency by Year (Belle Isle Marine Area - 1901 to 2000)

Note: Storms that span months were counted in both months


Tropical Storm Frequency by Month
(Belle Isle Marine Area - 1901 to 2000)

Note: Storms will generally span more than one day. The storm is counted in each day


Tropical Storm Frequency by Day
Belle Isle Marine Area - 1901 to 2000
(A single storm has been reported on Jul 6/12/22, Aug 3/25 & Sep 19/27/29)

Belle Isle – Summary Statistics

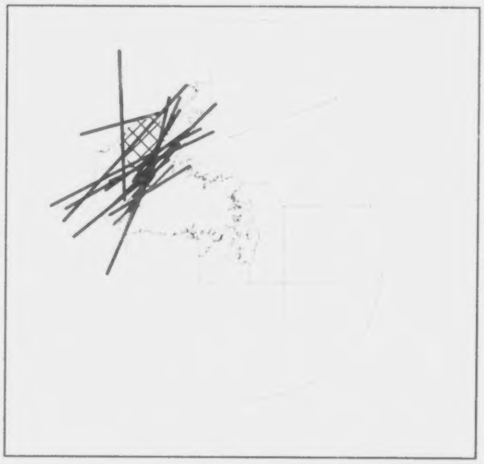
100 Yr	**TD**	**TS**	**G**	**S**	**S1**	**S2**	**S3**	**S4**	**S5**	**H**	**<H**	**ALL**	**Sys-Spd**
#	1	6	1	5	0	1	0	0	0	1	7	8	28.7
Return	100	16.7	100	20	NA	100	NA	NA	NA	100	14.3	12.5	
50 Yr	**TD**	**TS**	**G**	**S**	**S1**	**S2**	**S3**	**S4**	**S5**	**H**	**<H**	**ALL**	**Sys-Spd**
#	1	3	1	2	0	0	0	0	0	0	4	4	28.6
Return	50	16.7	50	25	NA	NA	NA	NA	NA	NA	12.5	12.5	

Belle Isle – Storm Details

Name	**Date**	**Storm #**	**MaxWind (kts)**	**SS Scale**	**AvgSysSpd (kts)**	**Pres (mb)**	**Comment**	**ENSO**
Not Named	Aug 03, 1908	2	50	TS	33.7		E	La Nina
Not Named	Aug 25, 1927	1	90	SS2	45.6		E	Neutral
Not Named	Sep 19, 1933	13	50	TS	13.9		E	Neutral
Not Named	Sep 27, 1937	7	60	TS	22.3		E	Neutral
Cindy	Jul 12, 1959	4	35	TS	28.5		E	Neutral

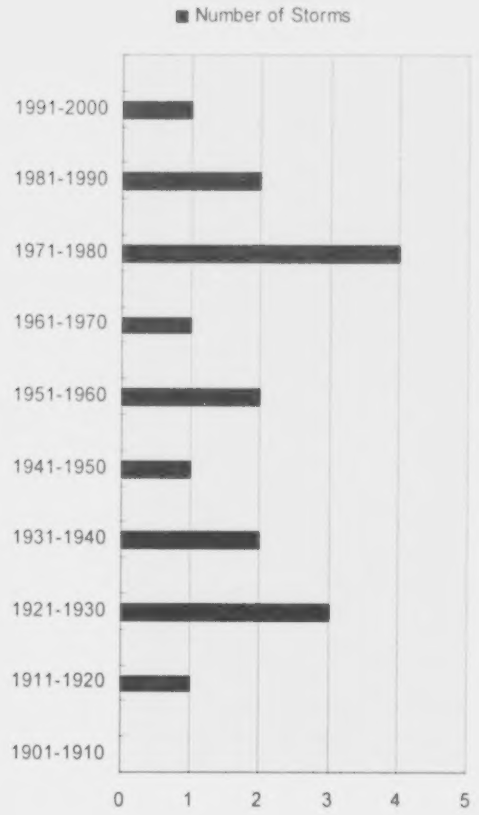
Name	Date	Storm #	MaxWind (kts)	SS Scale	AvgSysSpd (kts)	Pres (mb)	Comment	ENSO
Celia	Jul 22, 1966	3	25	TD	22.5		E	Neutral
Alice	Jul 06, 1973	1	50	TS	39.8			La Nina
Gloria	Sep 29, 1985	7	50	TS	23.7	990	E	Neutral

Northeast Gulf

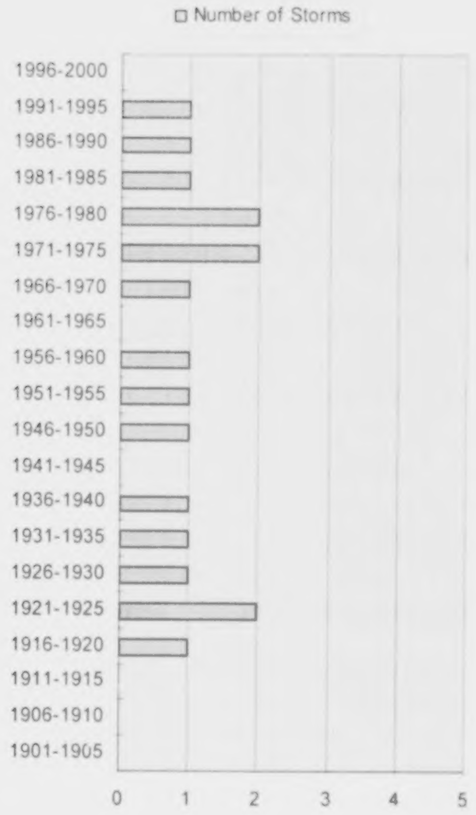


Northeast Gulf Marine Area Boundaries:
Straight line from South Head, Bay of Islands to 50°N 59°W on to intersect the Quebec north shore, then northeastward along the Quebec north shore to the intersection of an arc of a circle 90 nautical miles radius, centred at Belle Isle, with Quebec north shore, then along that arc to the west coast of Newfoundland, then southwestward along the west coast of Newfoundland to South Head.

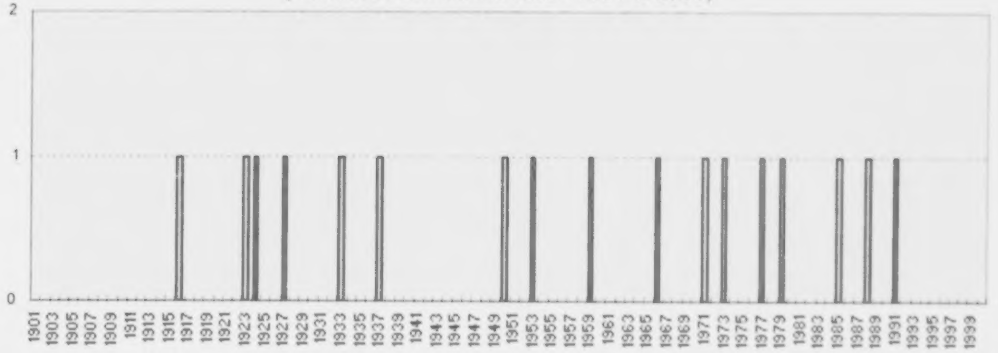
Storm Frequency - Ten Year Periods (Northeast Gulf)



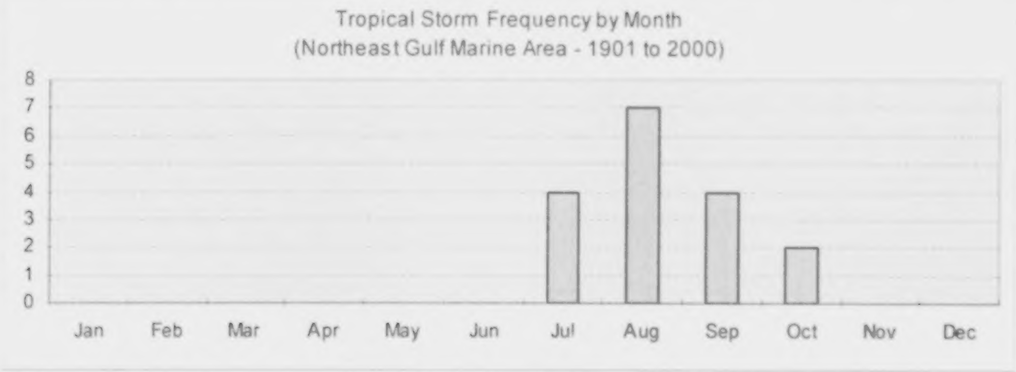
Storm Frequency - Five Year Periods (Northeast Gulf)



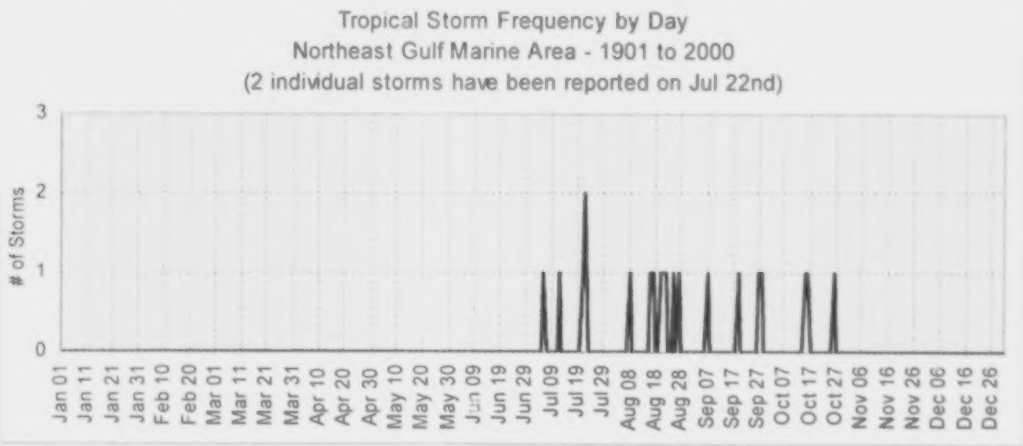
Tropical Storm Frequency by Year (Northeast Gulf Marine Area - 1901 to 2000)



Note: Storms that span months were counted in both months



Note: Storms will generally span more than one day. The storm is counted in each day



Northeast Gulf – Summary Statistics

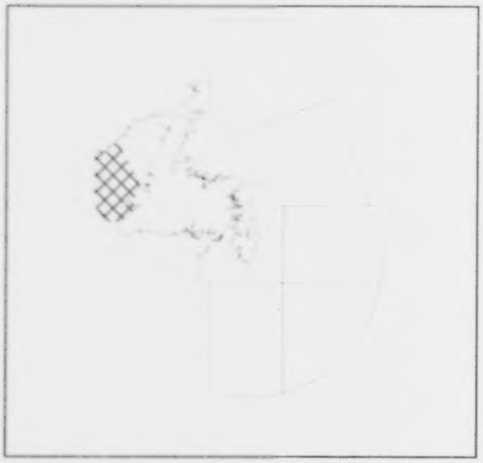
100 Yr	**TD**	**TS**	**G**	**S**	**S1**	**S2**	**S3**	**S4**	**S5**	**H**	**<H**	**ALL**	**Sys-Spd**
#	3	9	3	6	4	1	0	0	0	5	12	17	30.0
Return	33.3	11.1	33.3	16.7	25	100	NA	NA	NA	20	8.3	5.9	
50 Yr	**TD**	**TS**	**G**	**S**	**S1**	**S2**	**S3**	**S4**	**S5**	**H**	**<H**	**ALL**	**Sys-Spd**
#	1	7	2	5	2	0	0	0	0	2	8	10	30.1
Return	50	7.1	25	10	25	NA	NA	NA	NA	25	6.3	5	

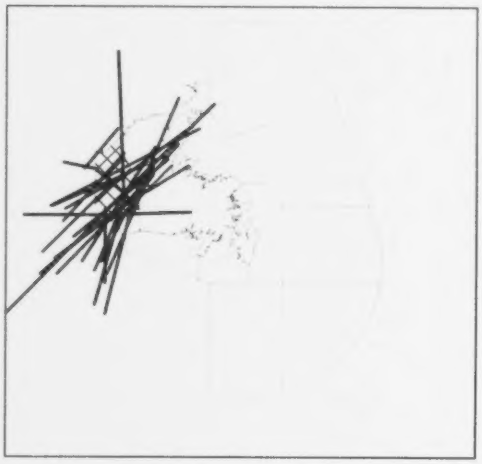
Northeast Gulf – Storm Details

Name	**Date**	**Storm #**	**MaxWind (kts)**	**SS Scale**	**AvgSysSpd (kts)**	**Pres (mb)**	**Comment**	**ENSO**
Not Named	Jul 22, 1916	2	35	TS	52.2		E	La Nina
Not Named	Oct 26, 1923	4	30	TD	18.6		E	Neutral
Not Named	Aug 27, 1924	2	75	SS1	29.6		E	La Nina
Not Named	Aug 25, 1927	1	90	SS2	45.6		E	Neutral
Not Named	Sep 19, 1933	13	55	TS	13.5		E	Neutral

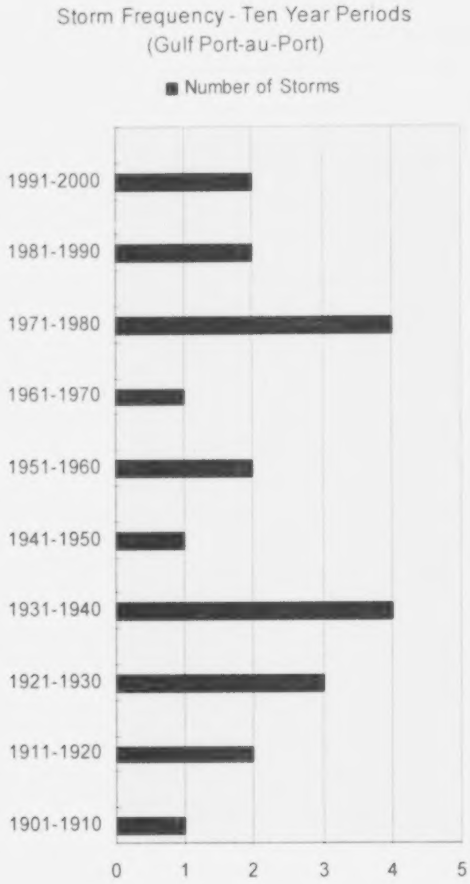
Name	Date	Storm #	MaxWind (kts)	SS Scale	AvgSysSpd (kts)	Pres (mb)	Comment	ENSO
Not Named	Sep 27, 1937	7	65	SS1	22.2		E	Neutral
Able	Aug 22, 1950	1	30	TD	26.5			Neutral
Barbara	Aug 16, 1953	2	50	TS	48.1		E	Neutral
Cindy	Jul 12, 1959	4	35	TS	28.8		E	Neutral
Celia	Jul 21, 1966	3	65	SS1	30.3		E	Neutral
Beth	Aug 17, 1971	3	50	TS	14.7	998	E	La Nina
Alice	Jul 06, 1973	1	50	TS	39.8			La Nina
Evelyn	Oct 15, 1977	5	70	SS1	18.0	999		Neutral
David	Sep 07, 1979	4	50	TS	38.8	987	E	Neutral
Gloria	Sep 28, 1985	7	50	TS	24.3	987	E	Neutral
Alberto	Aug 08, 1988	1	30	TD	32.6	1008	E	La Nina
Bob	Aug 20, 1991	2	40	TS	25.8	1003	E	El Nino

Gulf Port-au-Port

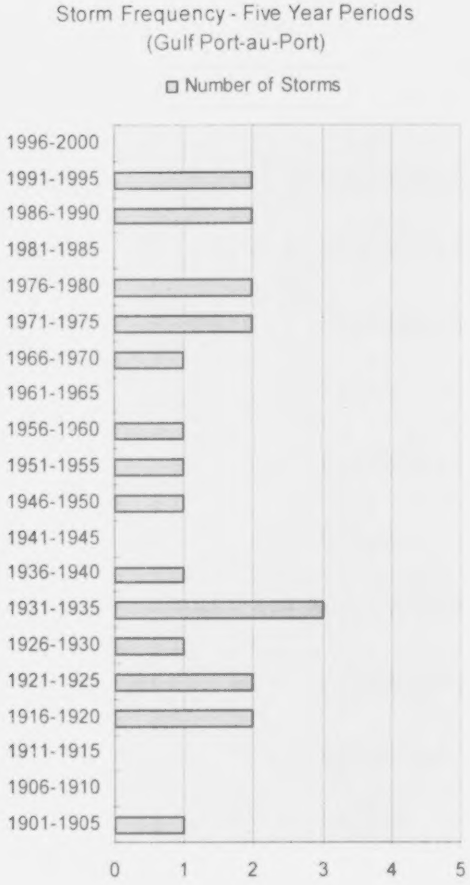




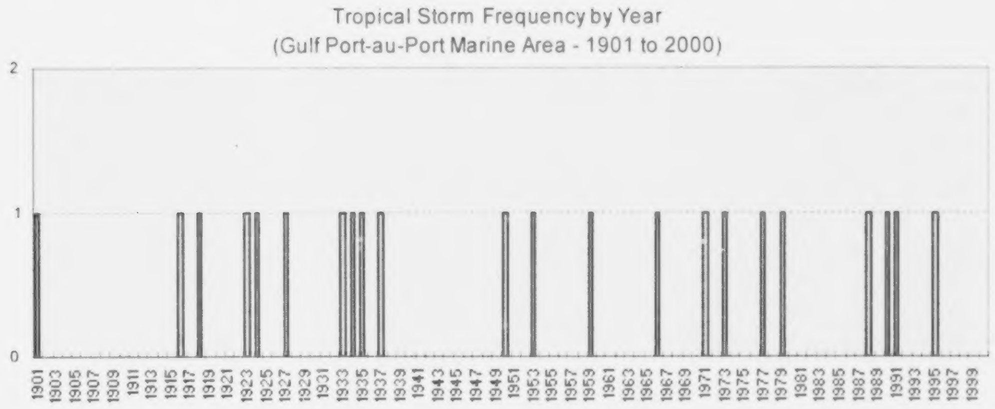
Gulf Port-au-Port Marine Area Boundaries:
48°N 60°W due east to the west coast of Newfoundland, then northeastward to South Head, Bay of Islands, then along a straight line to 50°N 59°W to the Quebec north shore, then westward along the north shore to longitude 60.5°N then due south to 48.5°N 60.5°W to 48°N 60°W.



Storm Frequency - Ten Year Periods
(Gulf Port-au-Port)

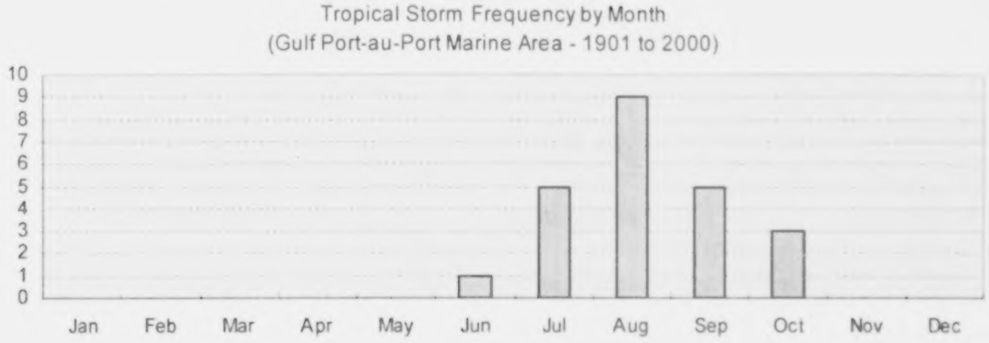


Storm Frequency - Five Year Periods
(Gulf Port-au-Port)

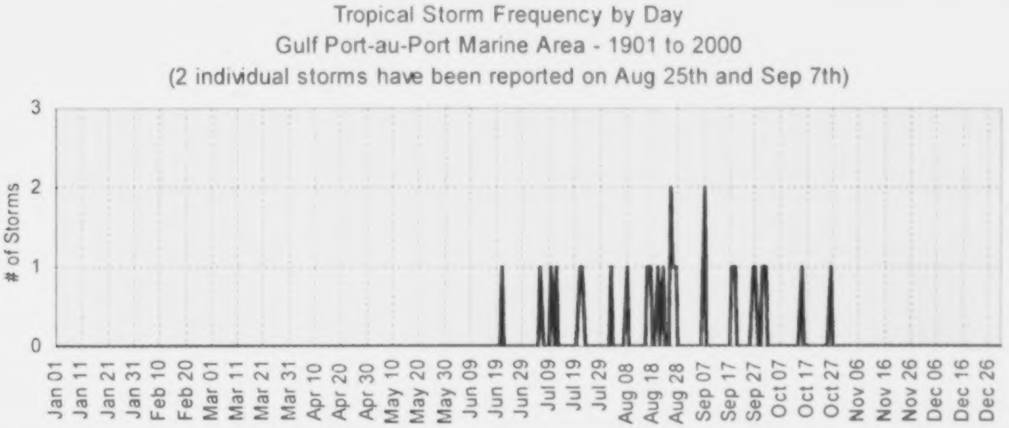


Tropical Storm Frequency by Year
(Gulf Port-au-Port Marine Area - 1901 to 2000)

Note: Storms that span months were counted in both months


Tropical Storm Frequency by Month
(Gulf Port-au-Port Marine Area - 1901 to 2000)

Note: Storms will generally span more than one day. The storm is counted in each day


Tropical Storm Frequency by Day
Gulf Port-au-Port Marine Area - 1901 to 2000
(2 individual storms have been reported on Aug 25th and Sep 7th)

Gulf Port-au-Port – Summary Statistics

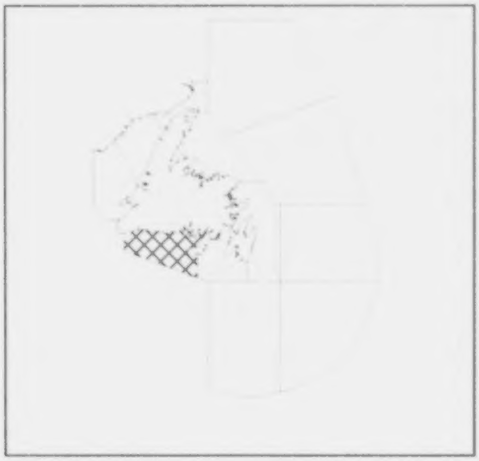
100 Yr	TD	TS	G	S	S1	S2	S3	S4	S5	H	<H	ALL	Sys-Spd
#	3	14	7	7	4	1	0	0	0	5	17	22	28.0
Return	33.3	7.1	14.3	14.3	25	100	NA	NA	NA	20	5.9	4.5	
50 Yr	**TD**	**TS**	**G**	**S**	**S1**	**S2**	**S3**	**S4**	**S5**	**H**	**<H**	**ALL**	**Sys-Spd**
#	0	9	4	5	2	0	0	0	0	2	9	11	29.4
Return	NA	5.6	12.5	10	25	NA	NA	NA	NA	25	5.6	4.5	

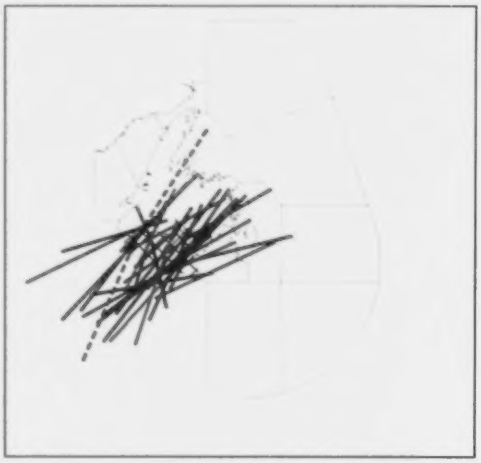
Gulf Port-au-Port – Storm Details

Name	Date	Storm #	MaxWind (kts)	SS Scale	AvgSysSpd (kts)	Pres (mb)	Comment	ENSO
Not Named	Sep 30, 1901	8	30	TD	26.6		E	Neutral
Not Named	Jul 22, 1916	2	35	TS	52.2		E	La Nina
Not Named	Sep 07, 1918	4	40	TS	20.2		E	El Nino
Not Named	Oct 26, 1923	4	30	TD	19.0		E	Neutral
Not Named	Aug 27, 1924	2	80	SS1	29.5		E	La Nina

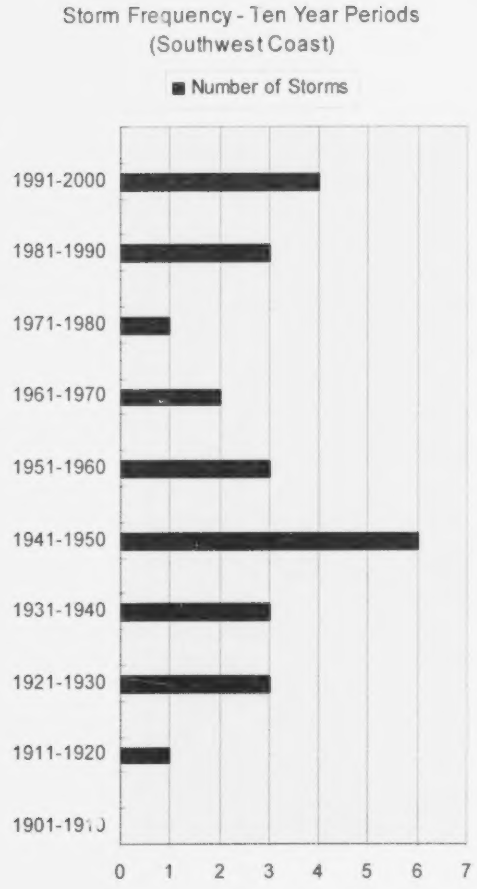
Name	Date	Storm #	MaxWind (kts)	SS Scale	AvgSysSpd (kts)	Pres (mb)	Comment	ENSO
Not Named	Aug 25, 1927	1	90	SS2	51.0		E	Neutral
Not Named	Sep 18, 1933	13	55	TS	14.5		E	Neutral
Not Named	Jun 21, 1934	2	35	TS	16.5		E	Neutral
Not Named	Aug 25, 1935	1	55	TS	7.2		E	Neutral
Not Named	Sep 26, 1937	7	70	SS1	28.6		E	Neutral
Able	Aug 22, 1950	1	30	TD	26.5			Neutral
Barbara	Aug 16, 1953	2	55	TS	41.7		E	Neutral
Cindy	Jul 12, 1959	4	35	TS	29.1		E	Neutral
Celia	Jul 21, 1966	3	65	SS1	38.0		E	Neutral
Beth	Aug 17, 1971	3	60	TS	16.3	998	E	La Nina
Alice	Jul 06, 1973	1	60	TS	36.9	991		La Nina
Evelyn	Oct 15, 1977	5	70	SS1	18.0	999		Neutral
David	Sep 07, 1979	4	50	TS	38.8	987	E	Neutral
Alberto	Aug 08, 1988	1	35	TS	30.5	1006		La Nina
Bertha	Aug 02, 1990	2	60	TS	24.0	978	E	Neutral
Bob	Aug 20, 1991	2	40	TS	27.4	1003	E	El Nino
Barry	Jul 10, 1995	2	45	TS	22.8	990		Neutral

Southwest Coast

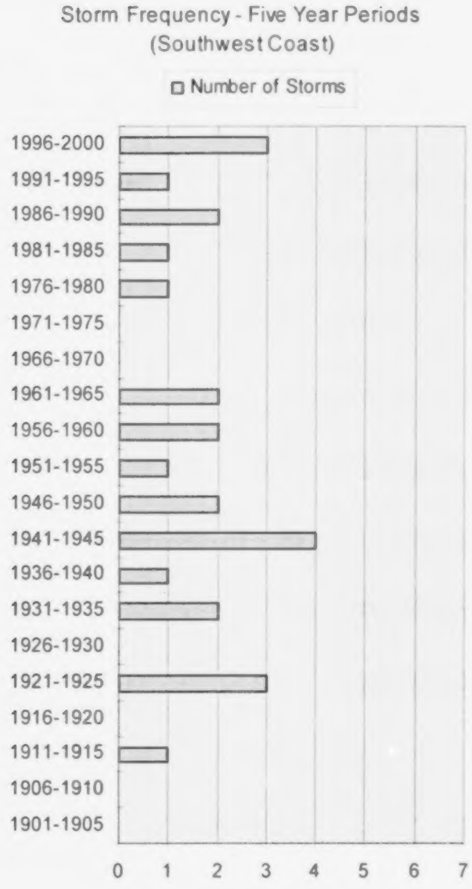




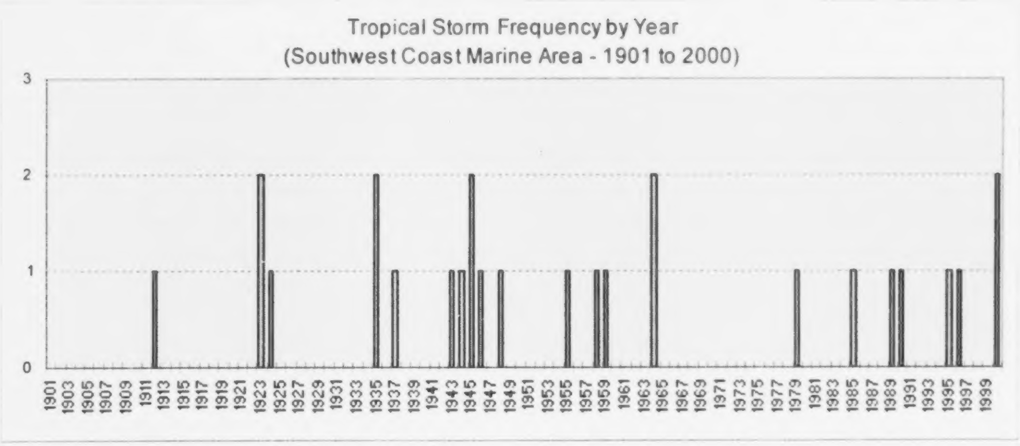
Southwest Coast Marine Area Boundaries:
47°N 59°W along a line joining points 47°N 59°W and 46°N 55°W, to longitude 55.5°W then due north to the Burin Peninsula, then west along the Burin Peninsula, around Fortune Bay, along the southwest coast of Newfoundland to longitude 59°W then due south to 47°N 59°W.



Storm Frequency - Ten Year Periods
(Southwest Coast)

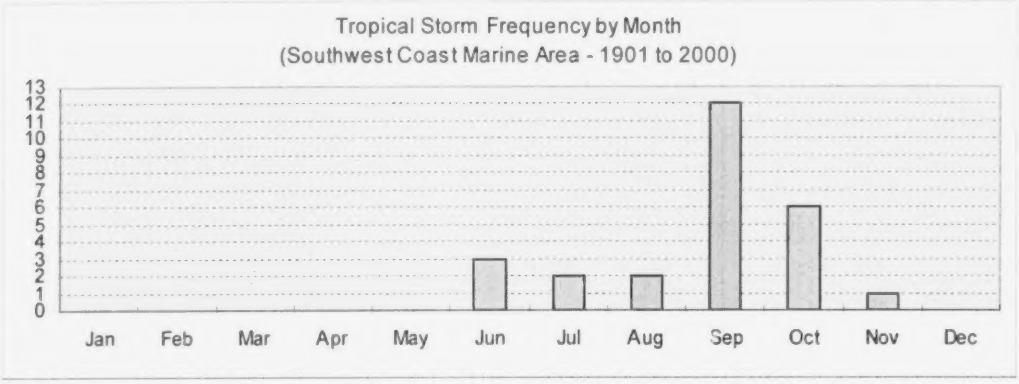


Storm Frequency - Five Year Periods
(Southwest Coast)

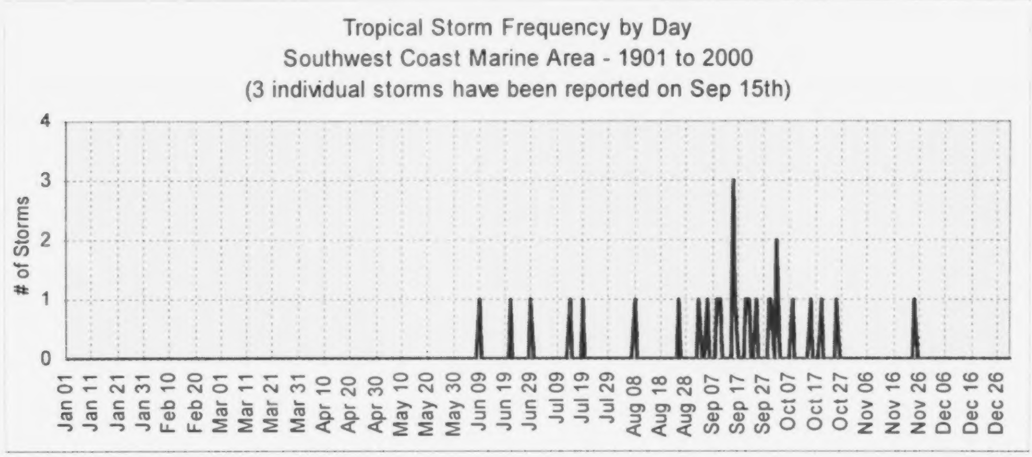


Tropical Storm Frequency by Year
(Southwest Coast Marine Area - 1901 to 2000)

Note: Storms that span months were counted in both months



Note: Storms will generally span more than one day. The storm is counted in each day



Southwest Coast – Summary Statistics

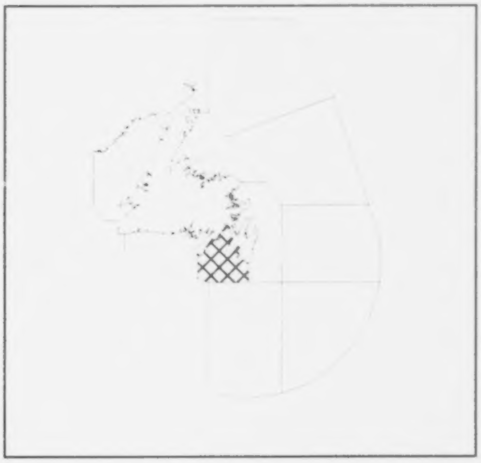
100 Yr	TD	TS	G	S	S1	S2	S3	S4	S5	H	<H	ALL	Sys-Spd
#	1	19	7	12	5	1	0	0	0	6	20	26	32.8
Return	100	5.3	14.3	8.3	20	100	NA	NA	NA	16.7	5	3.8	
50 Yr	**TD**	**TS**	**G**	**S**	**S1**	**S2**	**S3**	**S4**	**S5**	**H**	**<H**	**ALL**	**Sys-Spd**
#	0	10	4	6	2	1	0	0	0	3	10	13	33.6
Return	NA	5	12.5	8.3	25	50	NA	NA	NA	16.7	5	3.8	

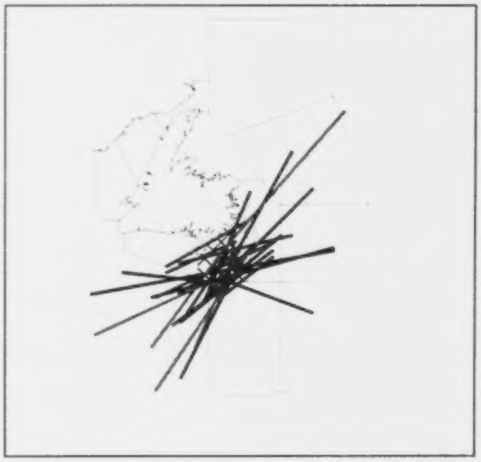
Southwest Coast – Storm Details

Name	Date	Storm #	MaxWind (kts)	SS Scale	AvgSysSpd (kts)	Pres (mb)	Comment	ENSO
Not Named	Nov 24, 1912	6	55	TS	43.2		E	Neutral
Not Named	Sep 10, 1923	1	55	TS	20.1		E	Neutral
Not Named	Oct 02, 1923	2	70	SS1	16.0		E	Neutral
Not Named	Sep 05, 1924	3	65	SS1	26.8		E	La Nina
Not Named	Aug 25, 1935	1	70	SS1	16.8		E	Neutral

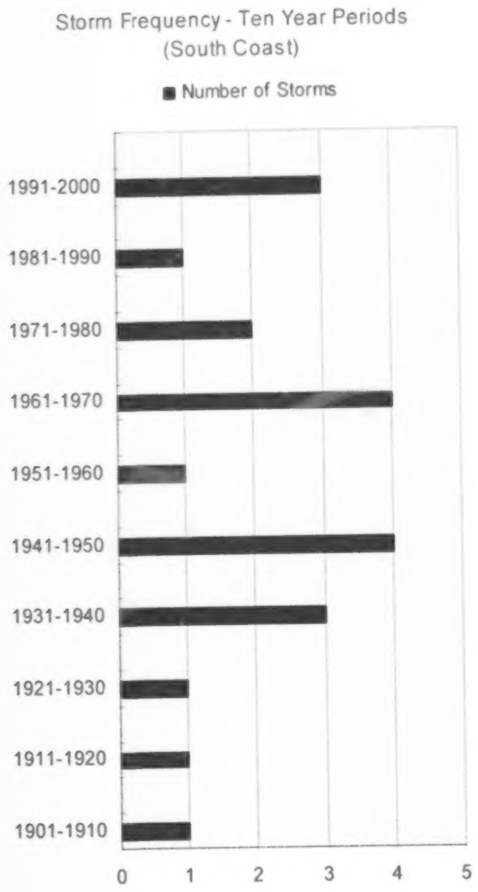
Name	Date	Storm #	MaxWind (kts)	SS Scale	AvgSysSpd (kts)	Pres (mb)	Comment	ENSO
Not Named	Oct 02, 1935	4	60	TS	41.2		E	Neutral
Not Named	Sep 30, 1937	8	35	TS	28.1		E	Neutral
Not Named	Sep 09, 1943	4	55	TS	35.1			Neutral
Not Named	Sep 15, 1944	7	35	TS	41.7	982	E	La Nina
Not Named	Jun 29, 1945	1	40	TS	31.2		E	Neutral
Not Named	Sep 20, 1945	9	25	TD	40.9		E	Neutral
Not Named	Sep 15, 1946	4	55	TS	33.3		E	Neutral
Not Named	Sep 02, 1948	3	50	TS	40.8		E	Neutral
Ione	Sep 21, 1955	9	50	TS	21.1		E	La Nina
Helene	Sep 29, 1958	8	65	SS1	36.8	966		Neutral
Not Named	Jun 21, 1959	3	45	TS	24.7		E	Neutral
Dora	Sep 15, 1964	6	55	TS	28.0		E	La Nina
Gladys	Sep 24, 1964	9	60	TS	46.8	990	E	La Nina
Subtrop 1	Oct 25, 1979	9	60	TS	42.8	980	S	Neutral
Ana	Jul 19, 1985	1	55	TS	29.1	996	E	Neutral
Dean	Aug 08, 1989	4	65	SS1	32.5	978		Neutral
Lili	Oct 15, 1990	12	40	TS	37.1	995	E	Neutral
Allison	Jun 09, 1995	1	40	TS	23.8	995	E	Neutral
Bertha	Jul 14, 1996	2	50	TS	35.2	995	E	Neutral
Leslie	Oct 08, 2000	12	40	TS	36.2	1003	E	La Nina
Michael	Oct 19, 2000	13	85	SS2	42.4	965		La Nina

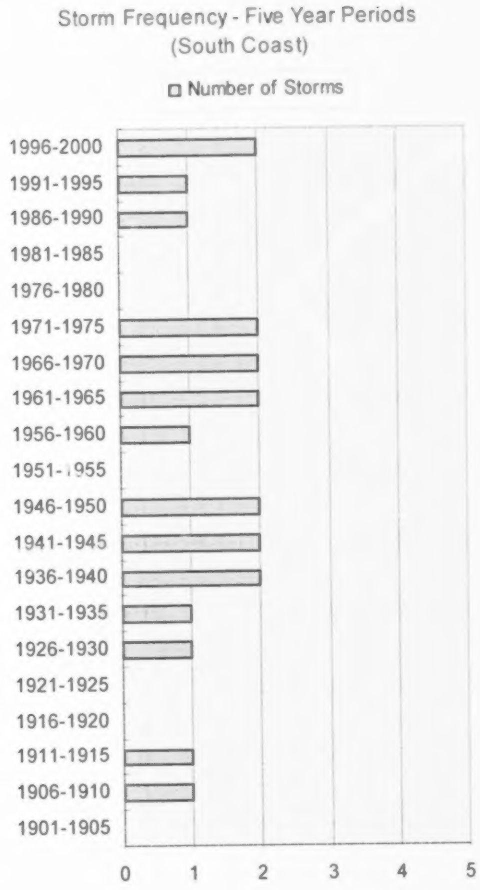
South Coast

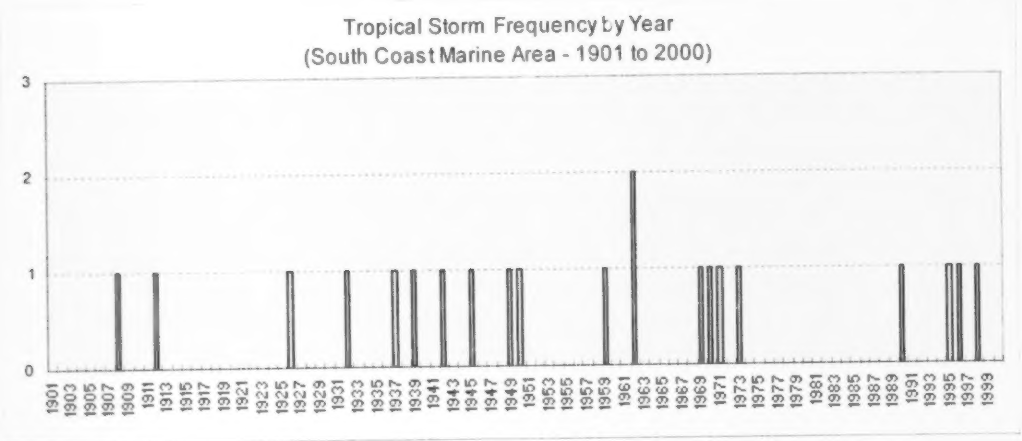




South Coast Marine Area Boundaries:
Cape Race due south to latitude 46°N, then due west to 46°N 55°W then along a line joining points 46°N 55°W and 47°N 59°W to reach longitude 55.5°W, then due north to the Burin Peninsula, then eastward along Burin Peninsula, along the shores of Placentia and St. Mary's Bays to Cape Race.


Storm Frequency - Ten Year Periods
(South Coast)
■ Number of Storms
1991-2000
1981-1990
1971-1980
1961-1970
1951-1960
1941-1950
1931-1940
1921-1930
1911-1920
1901-1910
0
1
2
3
4
5


Storm Frequency - Five Year Periods
(South Coast)
□ Number of Storms
1996-2000
1991-1995
1986-1990
1981-1985
1976-1980
1971-1975
1966-1970
1961-1965
1956-1960
1951-1955
1946-1950
1941-1945
1936-1940
1931-1935
1926-1930
1921-1925
1916-1920
1911-1915
1906-1910
1901-1905
0
1
2
3
4
5


Tropical Storm Frequency by Year
(South Coast Marine Area - 1901 to 2000)
3
2
1
0
1901
1903
1905
1907
1909
1911
1913
1915
1917
1919
1921
1923
1925
1927
1929
1931
1933
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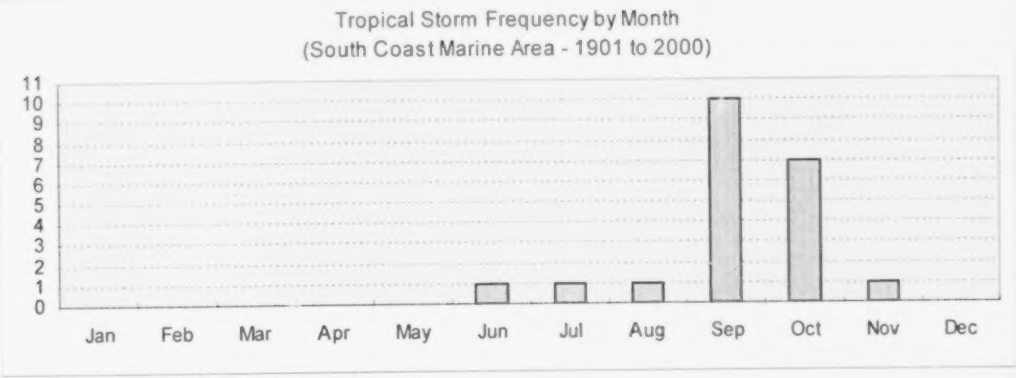
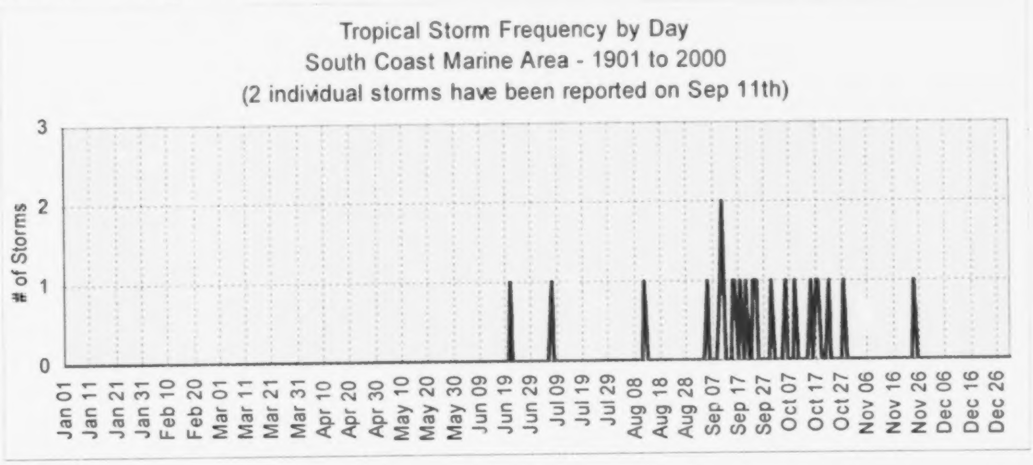
1999

Note: Storms that span months were counted in both months



Note: Storms will generally span more than one day. The storm is counted in each day



South Coast – Summary Statistics

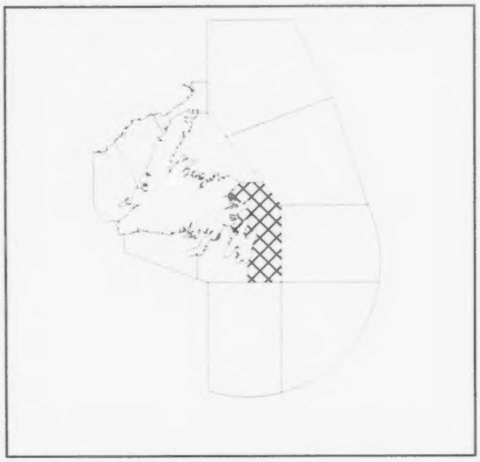
100 Yr	TD	TS	G	S	S1	S2	S3	S4	S5	H	<H	ALL	Sys-Spd
#	1	14	5	9	6	0	0	0	0	6	15	21	32.6
Return	100	7.1	20	11.1	16.7	NA	NA	NA	NA	16.7	6.7	4.8	
50 Yr	**TD**	**TS**	**G**	**S**	**S1**	**S2**	**S3**	**S4**	**S5**	**H**	**<H**	**ALL**	**Sys-Spd**
#	0	8	3	5	3	0	0	0	0	3	8	11	34.1
Return	NA	6.3	16.7	10	16.7	NA	NA	NA	NA	16.7	6.3	4.5	

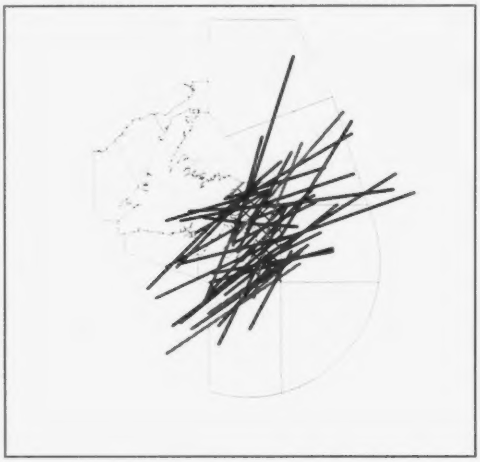
South Coast – Storm Details

Name	Date	Storm #	MaxWind (kts)	SS Scale	AvgSysSpd (kts)	Pres (mb)	Comment	ENSO
Not Named	Sep 18, 1908	4	60	TS	24.5		E	La Nina
Not Named	Nov 24, 1912	6	55	TS	43.2		E	Neutral
Not Named	Sep 23, 1926	4	55	TS	15.2		E	Neutral
Not Named	Sep 11, 1932	4	60	TS	19.9		E	Neutral
Not Named	Sep 30, 1937	8	35	TS	31.0		E	Neutral

Name	Date	Storm #	MaxWind (kts)	SS Scale	AvgSysSpd (kts)	Pres (mb)	Comment	ENSO
Not Named	Oct 18, 1939	4	80	SS1	35.2			Neutral
Not Named	Sep 24, 1942	5	35	TS	20.9		E	La Nina
Not Named	Sep 20, 1945	9	25	TD	40.7		E	Neutral
Not Named	Sep 10, 1949	4	65	SS1	36.9		E	La Nina
George	Oct 05, 1950	7	65	SS1	41.2		E	Neutral
Not Named	Jun 21, 1959	3	45	TS	24.7		E	Neutral
Daisy	Oct 09, 1962	4	50	TS	20.2		E	Neutral
Ella	Oct 22, 1962	5	60	TS	37.8		E	Neutral
Blanche	Aug 12, 1969	2	65	SS1	42.3	998		El Nino
Not Named	Oct 17, 1970	9	70	SS1	55.2	980		La Nina
Arlene	Jul 07, 1971	1	45	TS	29.3			La Nina
Gilda	Oct 28, 1973	8	55	TS	33.0		E	La Nina
Lili	Oct 15, 1990	12	40	TS	37.9	994	E	Neutral
Luis	Sep 11, 1995	12	80	SS1	48.9	965		Neutral
Hortense	Sep 15, 1996	8	60	TS	21.8	982		Neutral
Earl	Sep 05, 1998	5	50	TS	24.4	986	E	La Nina

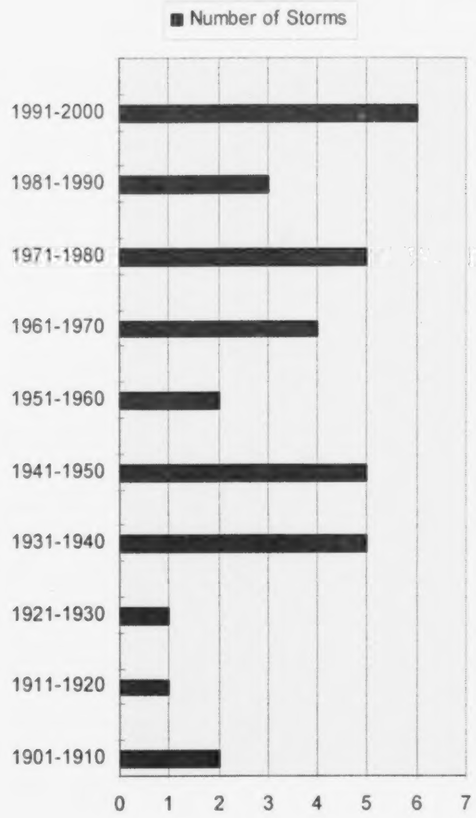
East Coast



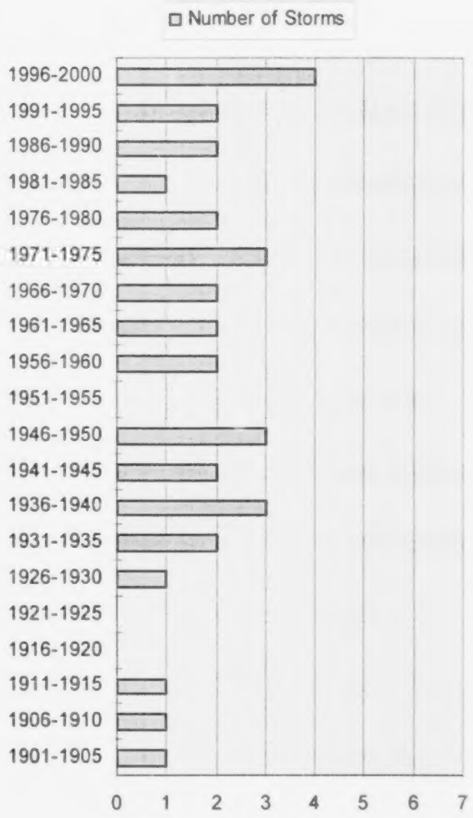


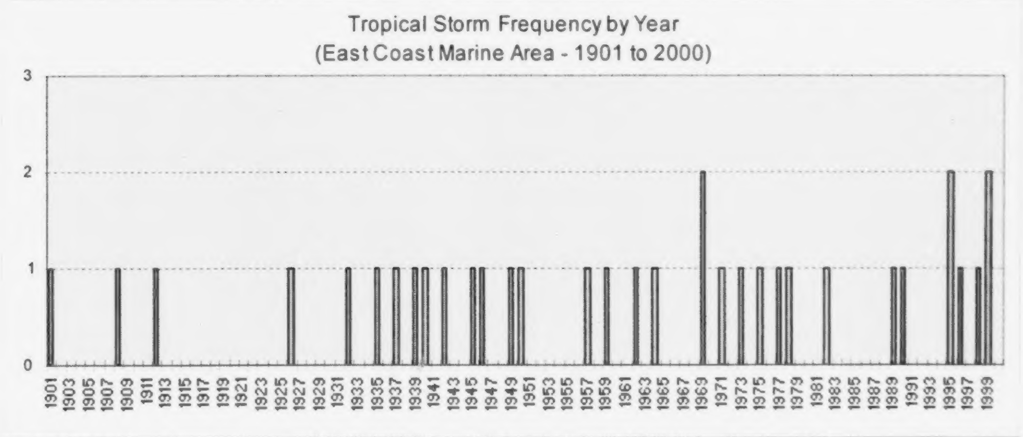
East Coast Marine Area Boundaries:
Cape Freels due east to intersect a line joining points 48.5°N 51.5°W and 51.5°N 55°W. From this point to 48.5°N 51.5°W then due south to 46°N 51.5°W, then west along latitude 46°N until due south of Cape Race. From this point due north to Cape Race then northeastward along the Avalon Peninsula, around Trinity, Conception and Bonavista Bays to Cape Freels.

Storm Frequency - Ten Year Periods
(East Coast)

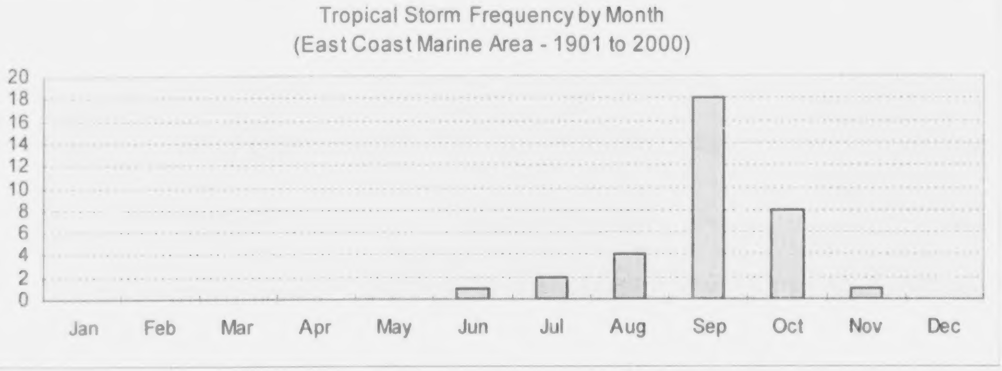


Storm Frequency - Five Year Periods
(East Coast)

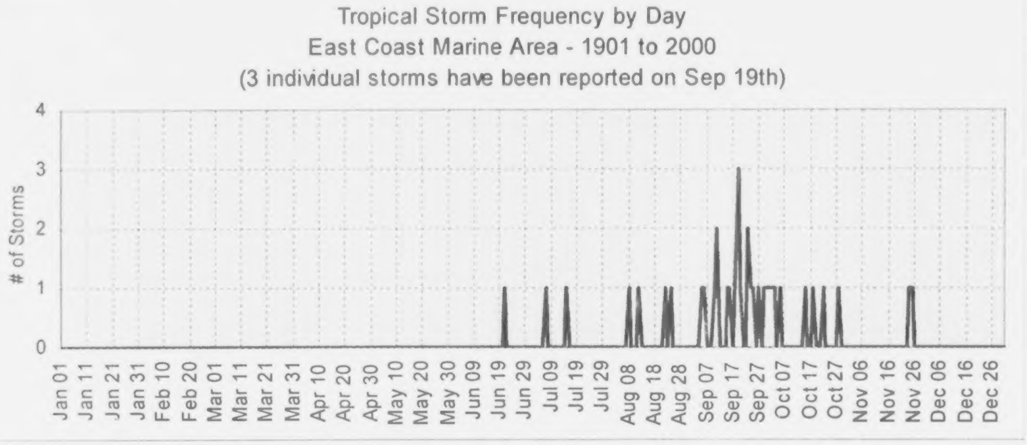




Note: Storms that span months were counted in both months



Note: Storms will generally span more than one day. The storm is counted in each day



East Coast – Summary Statistics

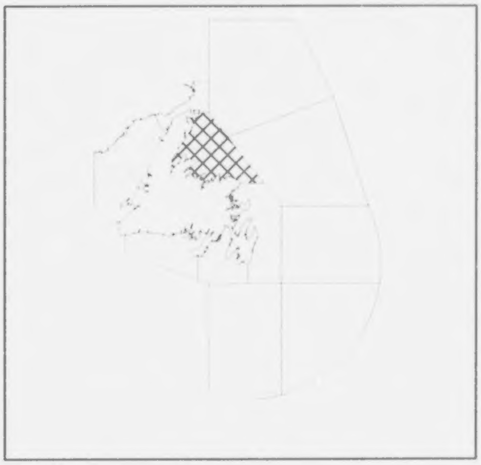
100 Yr	TD	TS	G	S	S1	S2	S3	S4	S5	H	<H	ALL	Sys-Spd
#	1	25	9	16	5	2	1	0	0	8	26	34	32.3
Return	100	4	11.1	6.3	20	50	100	NA	NA	12.5	3.8	2.9	
50 Yr	**TD**	**TS**	**G**	**S**	**S1**	**S2**	**S3**	**S4**	**S5**	**H**	**<H**	**ALL**	**Sys-Spd**
#	0	15	5	10	2	2	1	0	0	5	15	20	33.6
Return	NA	3.3	10	5	25	25	50	NA	NA	10	3.3	2.5	

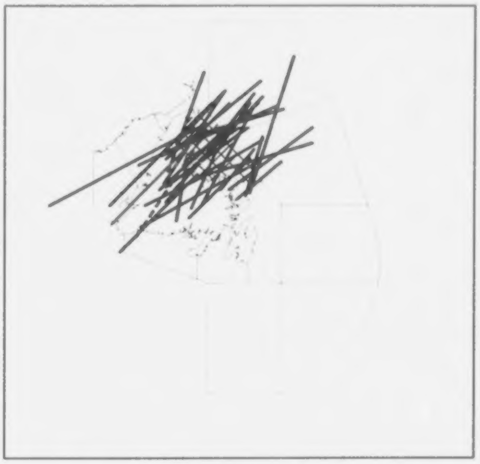
East Coast – Storm Details

Name	Date	Storm #	MaxWind (kts)	SS Scale	AvgSysSpd (kts)	Pres (mb)	Comment	ENSO
Not Named	Oct 01, 1901	8	35	TS	32.7		E	Neutral
Not Named	Sep 19, 1908	4	55	TS	19.9		E	La Nina
Not Named	Nov 24, 1912	6	55	TS	45.3		E	Neutral
Not Named	Sep 23, 1926	4	50	TS	18.1		E	Neutral
Not Named	Sep 11, 1932	4	60	TS	23.4		E	Neutral

Name	Date	Storm #	MaxWind (kts)	SS Scale	AvgSysSpd (kts)	Pres (mb)	Comment	ENSO
Not Named	Oct 02, 1935	4	60	TS	29.7		E	Neutral
Not Named	Sep 30, 1937	8	35	TS	26.5		E	Neutral
Not Named	Oct 18, 1939	4	65	SS1	36.3		E	Neutral
Not Named	Sep 18, 1940	5	35	TS	15.2		E	El Nino
Not Named	Sep 24, 1942	5	35	TS	20.9		E	La Nina
Not Named	Sep 20, 1945	9	25	TD	40.4		E	Neutral
Not Named	Sep 16, 1946	4	50	TS	32.9		E	Neutral
Not Named	Sep 10, 1949	4	65	SS1	41.5		E	La Nina
George	Oct 05, 1950	7	65	SS1	43.9		E	Neutral
Frieda	Sep 27, 1957	7	45	TS	25.3		E	El Nino
Not Named	Jun 21, 1959	3	45	TS	29.2		E	Neutral
Ella	Oct 22, 1962	5	60	TS	32.4		E	Neutral
Dora	Sep 15, 1964	6	55	TS	27.8		E	La Nina
Blanche	Aug 12, 1969	2	60	TS	42.1		E	El Nino
Debbie	Aug 24, 1969	4	80	SS1	26.3			El Nino
Arlene	Jul 07, 1971	1	45	TS	27.5			La Nina
Gilda	Oct 28, 1973	8	55	TS	38.0		E	La Nina
Gladys	Oct 03, 1975	7	85	SS2	53.7	960		La Nina
Dorothy	Sep 29, 1977	4	60	TS	28.6	990	E	Neutral
Ella	Sep 05, 1978	6	105	SS3	39.9	960		Neutral
Debby	Sep 19, 1982	5	90	SS2	26.9	970		El Nino
Dean	Aug 08, 1989	4	55	TS	35.3	991		Neutral
Lili	Oct 15, 1990	12	40	TS	37.9	994	E	Neutral
Felix	Aug 22, 1995	6	50	TS	41.9	986		Neutral
Luis	Sep 11, 1995	12	80	SS1	57.6	963		Neutral
Bertha	Jul 15, 1996	2	50	TS	34.6	995	E	Neutral
Earl	Sep 06, 1998	5	50	TS	12.0	968	E	La Nina
Floyd	Sep 19, 1999	6	35	TS	28.5	992	E	La Nina
Gert	Sep 23, 1999	7	60	TS	27.1	968		La Nina

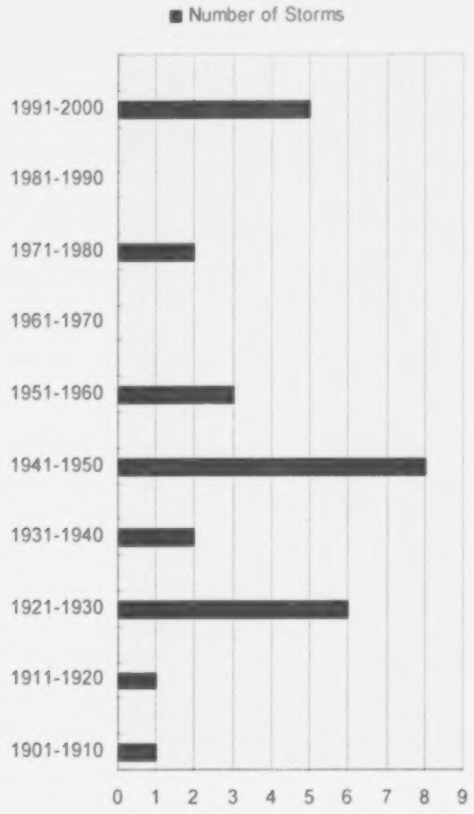
Northeast Coast



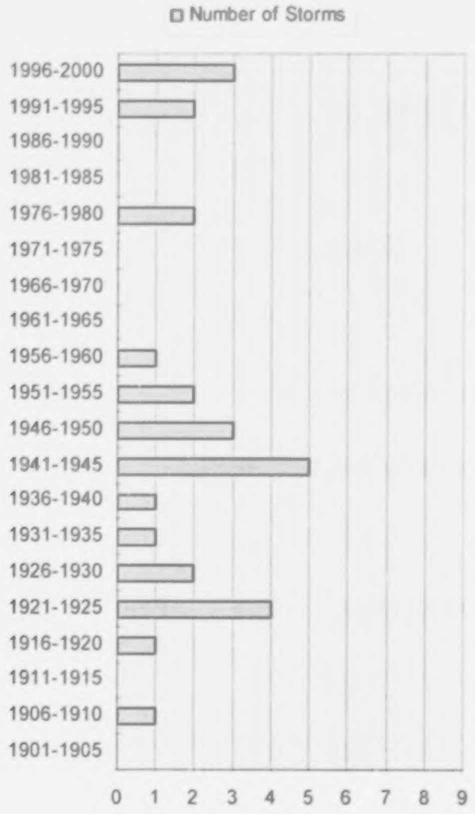


Northeast Coast Marine Area Boundaries:
Cape Freels westward along Notre Dame Bay, Green Bay and White Bay to St. Lunaire (just south of Cape Bauld), then due east from St. Lunaire to 51.5°N 55°W, then following a line from this point towards 48.5°N 51.5°W until due east of Cape Freels, then due west to Cape Freels.

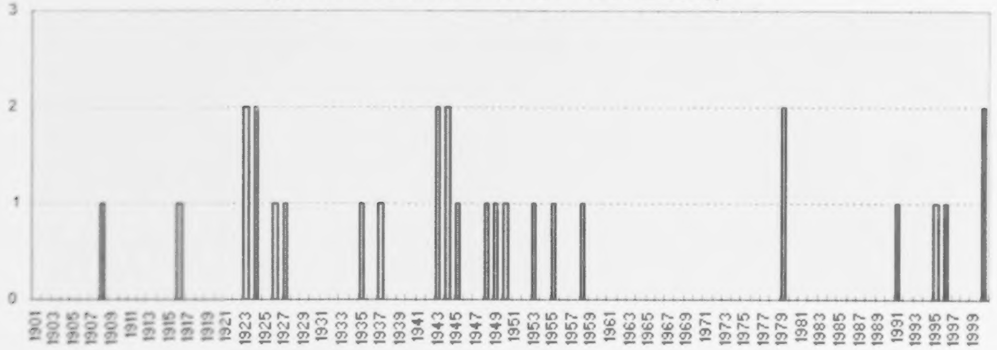
Storm Frequency - Ten Year Periods (Northeast Coast)



Storm Frequency - Five Year Periods (Northeast Coast)

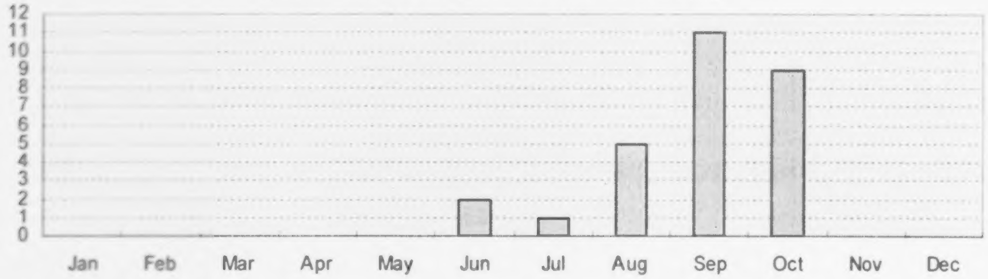


Tropical Storm Frequency by Year
(Northeast Coast Marine Area - 1901 to 2000)



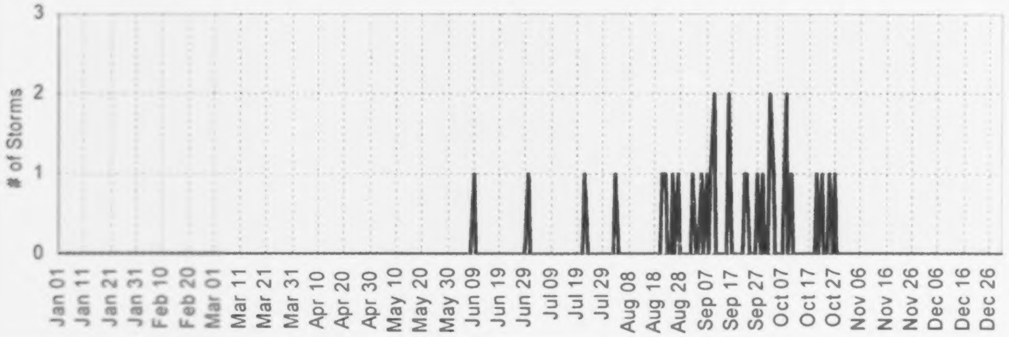
Note: Storms that span months were counted in both months

Tropical Storm Frequency by Month
(Northeast Coast Marine Area - 1901 to 2000)



Note: Storms will generally span more than one day. The storm is counted in each day

Tropical Storm Frequency by Day
Northeast Coast Marine Area - 1901 to 2000
(2 individual storms have been reported on Sep 10/16 and Oct 2/8)



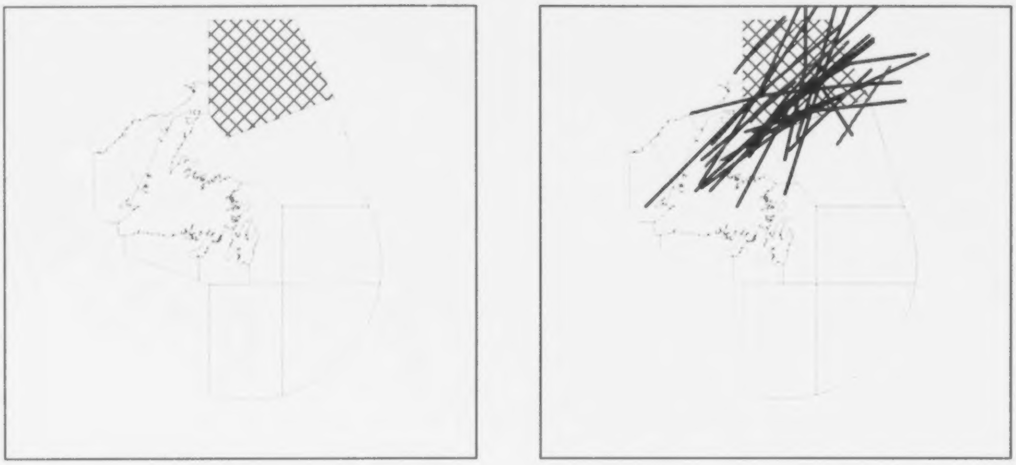
Northeast Coast – Summary Statistics

100 Yr	**TD**	**TS**	**G**	**S**	**S1**	**S2**	**S3**	**S4**	**S5**	**H**	**<H**	**ALL**	**Sys-Spd**
#	2	22	11	11	3	1	0	0	0	4	24	28	30.7
Return	50	4.5	9.1	9.1	33.3	100	NA	NA	NA	25	4.2	3.6	
50 Yr	**TD**	**TS**	**G**	**S**	**S1**	**S2**	**S3**	**S4**	**S5**	**H**	**<H**	**ALL**	**Sys-Spd**
#	0	8	5	3	2	0	0	0	0	2	8	10	30.1
Return	NA	6.3	10	16.7	25	NA	NA	NA	NA	25	6.3	5	

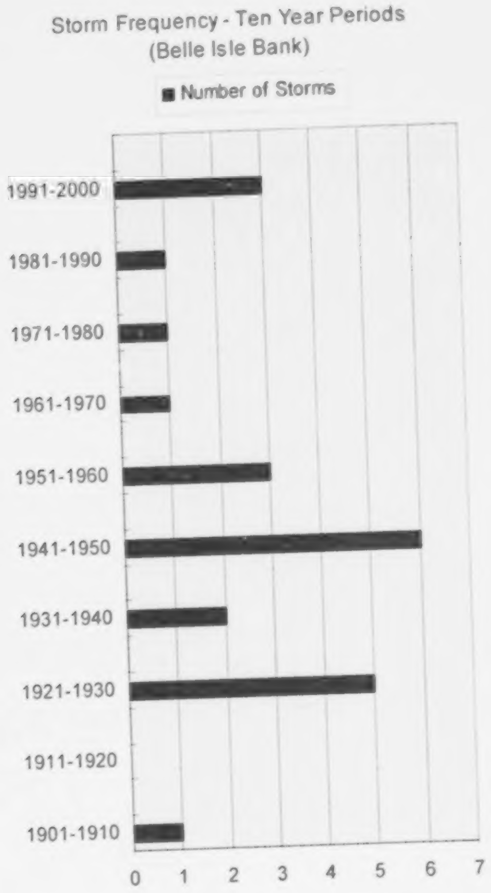
Northeast Coast – Storm Details

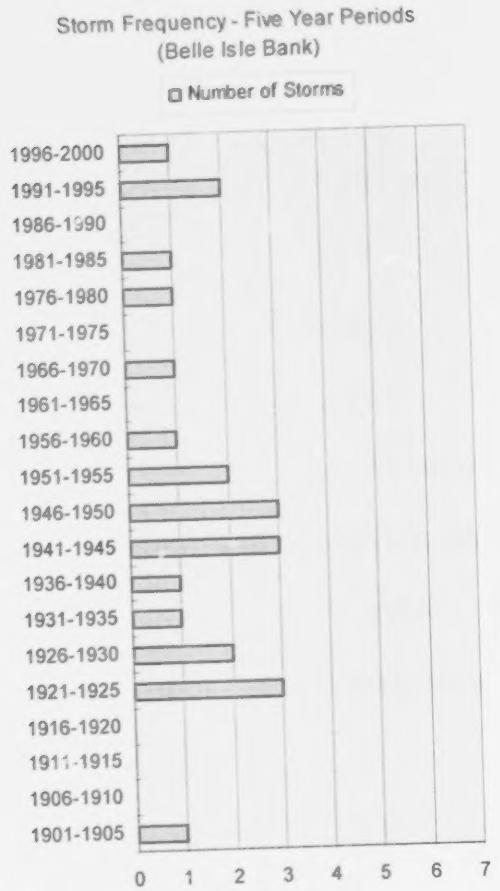
Name	Date	Storm #	MaxWind (kts)	SS Scale	AvgSysSpd (kts)	Pres (mb)	Comment	ENSO
Not Named	Aug 03, 1908	2	50	TS	33.7		E	La Nina
Not Named	Jul 22, 1916	2	35	TS	52.2		E	La Nina
Not Named	Oct 02, 1923	2	60	TS	22.0		E	Neutral
Not Named	Oct 27, 1923	4	35	TS	19.1		E	Neutral
Not Named	Aug 27, 1924	2	65	SS1	29.4		E	La Nina
Not Named	Sep 05, 1924	3	50	TS	27.1		E	La Nina
Not Named	Sep 23, 1926	4	50	TS	19.7		E	Neutral
Not Named	Aug 25, 1927	1	90	SS2	45.6		E	Neutral
Not Named	Oct 02, 1935	4	50	TS	18.2		E	Neutral
Not Named	Sep 27, 1937	7	60	TS	22.3		E	Neutral
Not Named	Sep 09, 1943	4	55	TS	35.1			Neutral
Not Named	Sep 16, 1943	5	35	TS	31.4		E	Neutral
Not Named	Sep 16, 1944	7	30	TD	42.4		E	La Nina
Not Named	Oct 22, 1944	11	40	TS	35.2		E	La Nina
Not Named	Jun 30, 1945	1	35	TS	16.6		E	Neutral
Not Named	Sep 02, 1948	3	45	TS	35.8		E	Neutral
Not Named	Sep 10, 1949	4	60	TS	46.0		E	La Nina
Able	Aug 22, 1950	1	30	TD	26.6			Neutral
Not Named	Oct 08, 1953	10	60	TS	31.4		E	Neutral
Ione	Sep 22, 1955	9	45	TS	19.3		E	La Nina
Helene	Sep 29, 1958	8	65	SS1	40.2	968	E	Neutral
David	Sep 07, 1979	4	55	TS	37.7	986	E	Neutral
Subtrop 1	Oct 25, 1979	9	50	TS	41.5	982	S	Neutral
Bob	Aug 21, 1991	2	40	TS	23.6	1008	E	El Nino
Allison	Jun 09, 1995	1	40	TS	26.9	996	E	Neutral
Josephine	Oct 10, 1996	10	45	TS	27.9	985	E	Neutral
Leslie	Oct 08, 2000	12	35	TS	32.6	1005	E	La Nina
Michael	Oct 20, 2000	13	75	SS1	19.5	966	E	La Nina

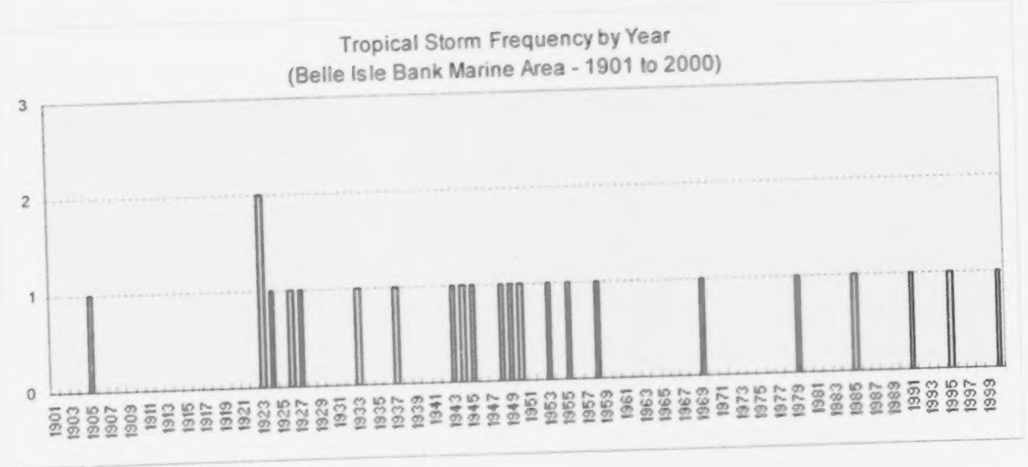
Belle Isle Bank



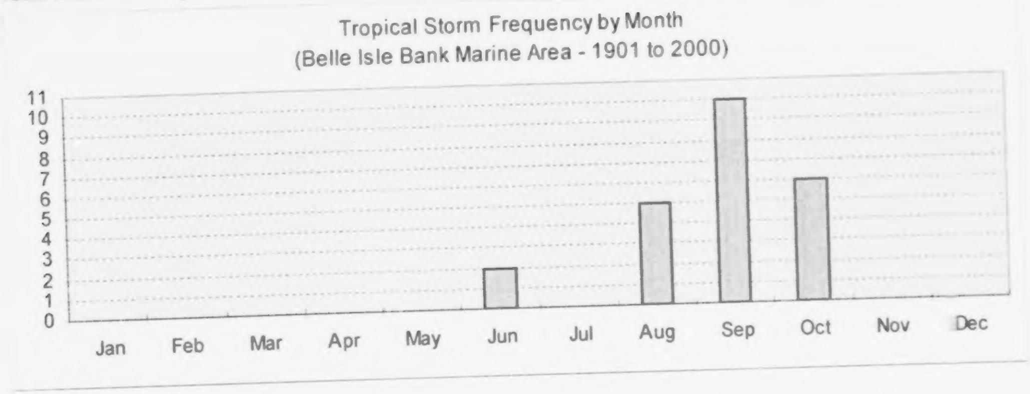
Belle Isle Bank Marine Area Boundaries:
51.5°N 55°W due north to 54.5°N 55°W then due east to intercept a line joining the points 52°N 49°W and 56°N 52°W. From this intersection southeastward to 52°N 49°W then southwestward to intercept a line joining the points 48.5°N 51.5°W and 51.5°N 55°W. From this second intercept northwestward to 51.5°N 55°W.


Storm Frequency - Ten Year Periods
(Belle Isle Bank)

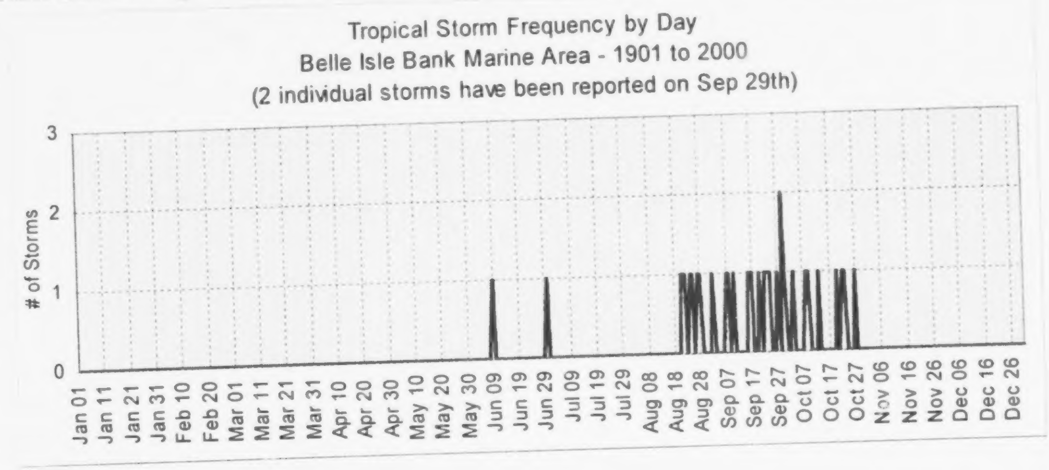

Storm Frequency - Five Year Periods
(Belle Isle Bank)


Tropical Storm Frequency by Year
(Belle Isle Bank Marine Area - 1901 to 2000)

Note: Storms that span months were counted in both months



Note: Storms will generally span more than one day. The storm is counted in each day



Belle Isle Bank – Summary Statistics

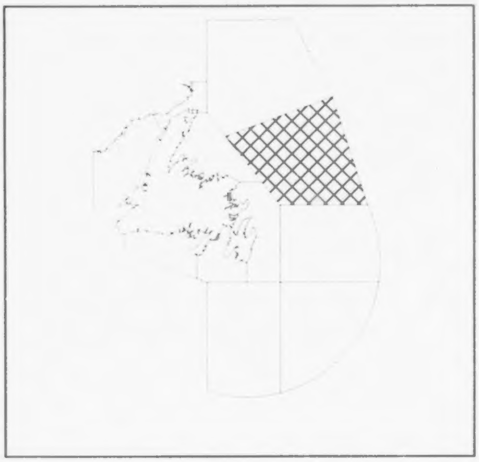
100 Yr	**TD**	**TS**	**G**	**S**	**S1**	**S2**	**S3**	**S4**	**S5**	**H**	**<H**	**ALL**	**Sys-Spd**
#	1	17	9	8	4	1	0	0	0	5	18	23	27.0
Return	100	5.9	11.1	12.5	25	100	NA	NA	NA	20	5.6	4.3	
50 Yr	**TD**	**TS**	**G**	**S**	**S1**	**S2**	**S3**	**S4**	**S5**	**H**	**<H**	**ALL**	**Sys-Spd**
#	0	6	3	3	3	0	0	0	0	3	6	9	27.7
Return	NA	8.3	16.7	16.7	16.7	NA	NA	NA	NA	16.7	8.3	5.6	

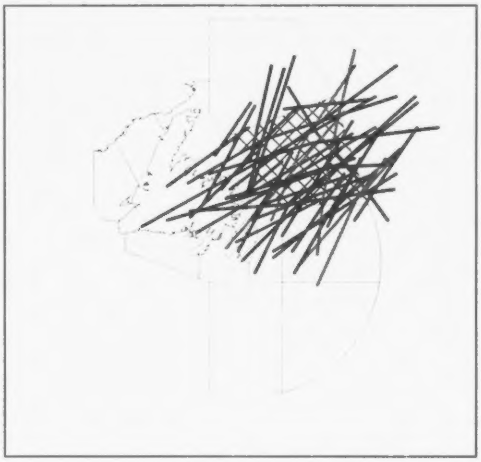
Belle Isle Bank – Storm Details

Name	**Date**	**Storm #**	**MaxWind (kts)**	**SS Scale**	**AvgSysSpd (kts)**	**Pres (mb)**	**Comment**	**ENSO**
Not Named	Oct 13, 1905	4	35	TS	17.4		E	El Nino
Not Named	Oct 03, 1923	2	55	TS	20.8		E	Neutral
Not Named	Oct 27, 1923	4	35	TS	19.4		E	Neutral
Not Named	Aug 27, 1924	2	65	SS1	30.0		E	La Nina
Not Named	Sep 23, 1926	4	50	TS	24.3		E	Neutral

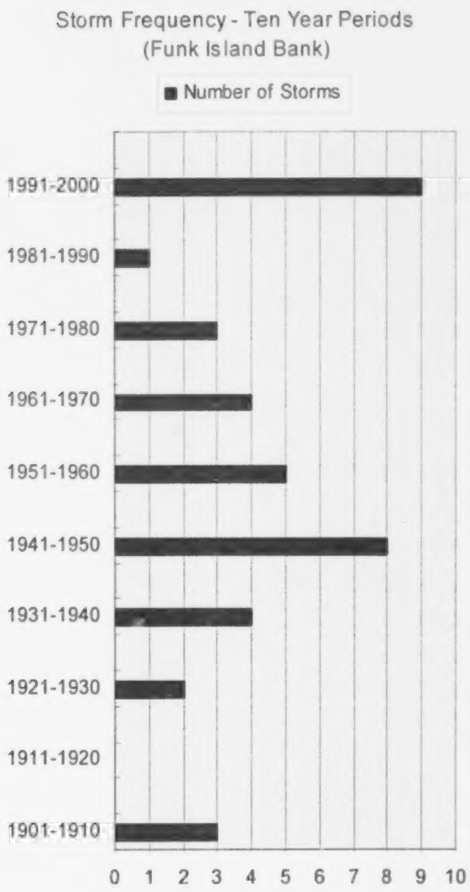
Name	Date	Storm #	MaxWind (kts)	SS Scale	AvgSysSpd (kts)	Pres (mb)	Comment	ENSO
Not Named	Aug 25, 1927	1	90	SS2	41.8		E	Neutral
Not Named	Sep 20, 1933	13	50	TS	11.5		E	Neutral
Not Named	Sep 27, 1937	7	60	TS	25.1		E	Neutral
Not Named	Sep 16, 1943	5	35	TS	35.9		E	Neutral
Not Named	Oct 22, 1944	11	40	TS	38.7		E	La Nina
Not Named	Jun 30, 1945	1	35	TS	17.8		E	Neutral
Not Named	Sep 02, 1948	3	45	TS	20.9		E	Neutral
Not Named	Sep 10, 1949	4	60	TS	41.5		E	La Nina
Able	Aug 22, 1950	1	25	TD	26.8			Neutral
Not Named	Oct 08, 1953	10	60	TS	26.7		E	Neutral
Ione	Sep 22, 1955	9	45	TS	20.6		E	La Nina
Helene	Sep 29, 1958	8	65	SS1	34.5	968	E	Neutral
Debbie	Aug 24, 1969	4	65	SS1	29.4			El Nino
David	Sep 08, 1979	4	60	TS	37.7	985	E	Neutral
Gloria	Sep 29, 1985	7	50	TS	20.8	990	E	Neutral
Bob	Aug 21, 1991	2	40	TS	24.3	1008	E	El Nino
Allison	Jun 09, 1995	1	40	TS	35.3	997	E	Neutral
Michael	Oct 20, 2000	13	70	SS1	20.0	966	E	La Nina

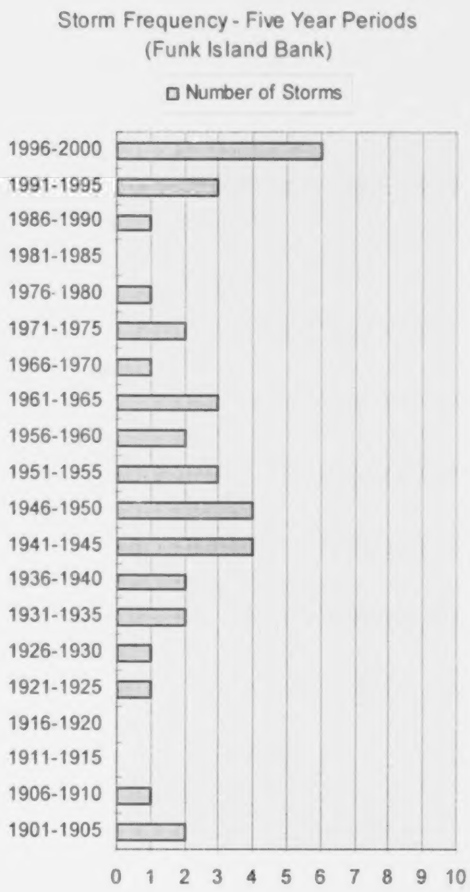
Funk Island Bank

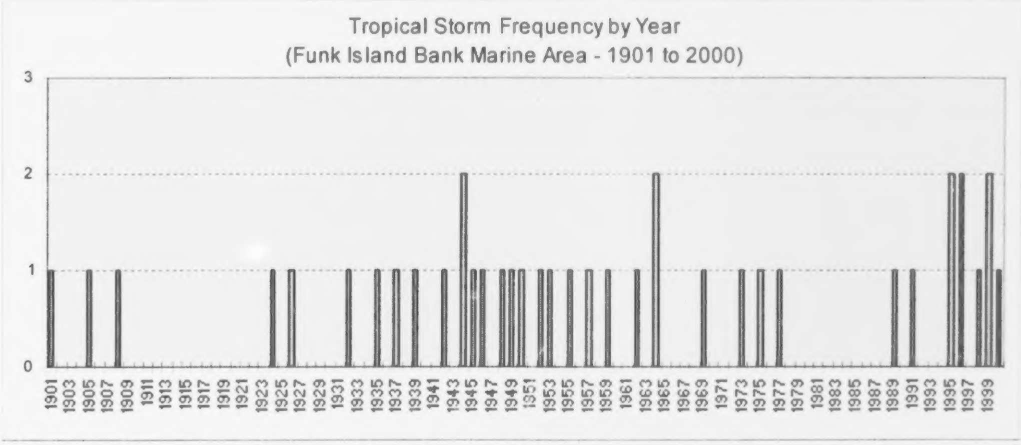




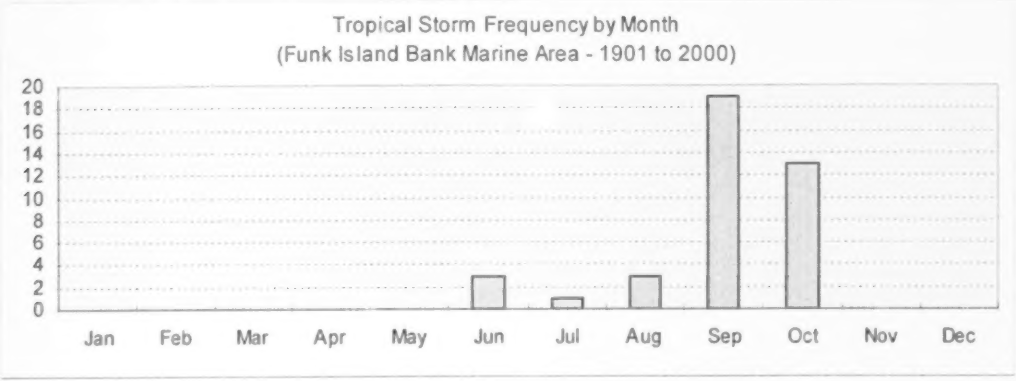
Funk Island Bank Marine Area Boundaries:
48.5°N 51.5°W east to intersection of latitude 48.5°N and an arc of a circle centred on Cape Race and of radius 250 nautical miles (distance from Cape Race to 42.5°N 55°W), then northwest to 52°N 49°W, then southwestward through 51°N 53°W to intersect a line joining the points 48.5°N 51.5°W and 51.5°N 55°W. From this intersection southeastward to 48.5°N 51.5°W.


Storm Frequency - Ten Year Periods
(Funk Island Bank)
■ Number of Storms
1991-2000
1981-1990
1971-1980
1961-1970
1951-1960
1941-1950
1931-1940
1921-1930
1911-1920
1901-1910
0 1 2 3 4 5 6 7 8 9 10

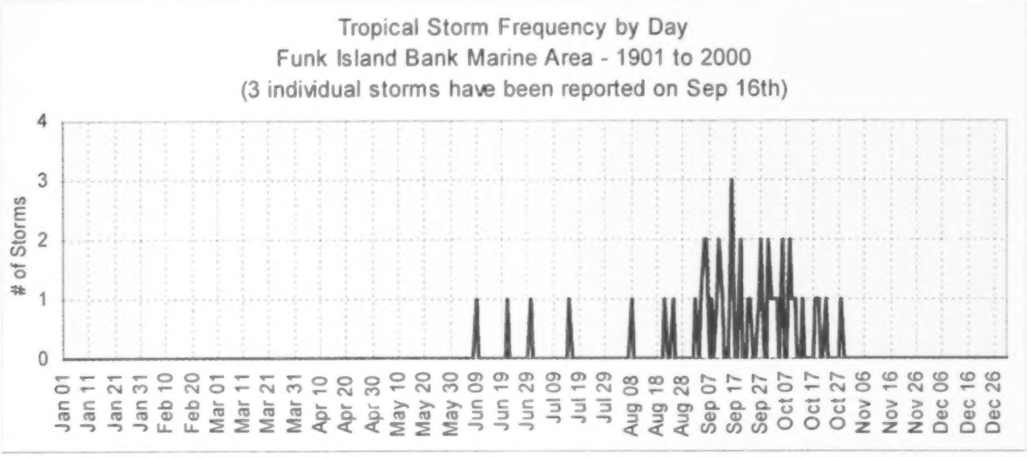

Storm Frequency - Five Year Periods
(Funk Island Bank)
□ Number of Storms
1996-2000
1991-1995
1986-1990
1981-1985
1976-1980
1971-1975
1966-1970
1961-1965
1956-1960
1951-1955
1946-1950
1941-1945
1936-1940
1931-1935
1926-1930
1921-1925
1916-1920
1911-1915
1906-1910
1901-1905
0 1 2 3 4 5 6 7 8 9 10


Tropical Storm Frequency by Year
(Funk Island Bank Marine Area - 1901 to 2000)
3
2
1
0
1901 1903 1905 1907 1909 1911 1913 1915 1917 1919 1921 1923 1925 1927 1929 1931 1933 1935 1937 1939 1941 1943 1945 1947 1949 1951 1953 1955 1957 1959 1961 1963 1965 1967 1969 1971 1973 1975 1977 1979 1981 1983 1985 1987 1989 1991 1993 1995 1997 1999

Note: Storms that span months were counted in both months



Note: Storms will generally span more than one day. The storm is counted in each day



Funk Island Bank – Summary Statistics

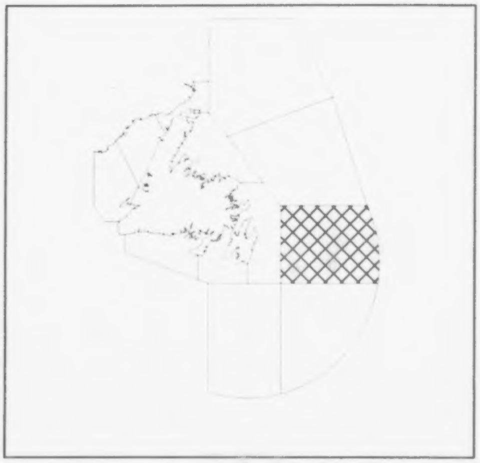
100 Yr	**TD**	**TS**	**G**	**S**	**S1**	**S2**	**S3**	**S4**	**S5**	**H**	**<H**	**ALL**	**Sys-Spd**
#	1	31	15	16	6	1	0	0	0	7	32	39	30.6
Return	100	3.2	6.7	6.3	16.7	100	NA	NA	NA	14.3	3.1	2.6	
50 Yr	**TD**	**TS**	**G**	**S**	**S1**	**S2**	**S3**	**S4**	**S5**	**H**	**<H**	**ALL**	**Sys-Spd**
#	0	17	9	8	4	1	0	0	0	5	17	22	32.1
Return	NA	2.9	5.6	6.3	12.5	50	NA	NA	NA	10	2.9	2.3	

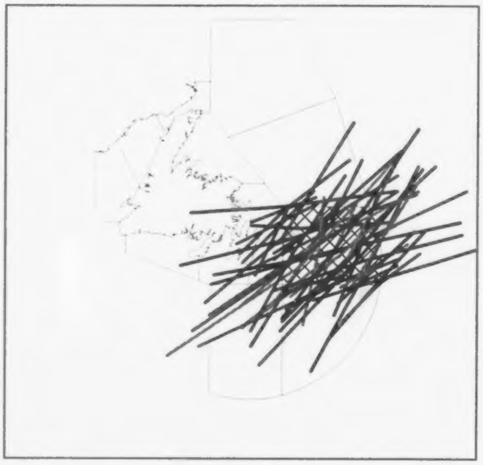
Funk Island Bank – Storm Details

Name	Date	Storm #	MaxWind (kts)	SS Scale	AvgSysSpd (kts)	Pres (mb)	Comment	ENSO
Not Named	Oct 01, 1901	8	35	TS	32.7		E	Neutral
Not Named	Oct 13, 1905	4	40	TS	17.7		E	El Nino
Not Named	Sep 19, 1908	4	55	TS	26.6		E	La Nina
Not Named	Sep 05, 1924	3	50	TS	23.2		E	La Nina
Not Named	Sep 23, 1926	4	50	TS	21.3		E	Neutral

Name	Date	Storm #	MaxWind (kts)	SS Scale	AvgSysSpd (kts)	Pres (mb)	Comment	ENSO
Not Named	Sep 11, 1932	4	60	TS	26.8		E	Neutral
Not Named	Oct 02, 1935	4	50	TS	18.2		E	Neutral
Not Named	Sep 30, 1937	8	35	TS	21.2		E	Neutral
Not Named	Oct 18, 1939	4	65	SS1	36.3		E	Neutral
Not Named	Oct 05, 1942	7	35	TS	27.3		E	La Nina
Not Named	Sep 16, 1944	7	30	TD	41.8		E	La Nina
Not Named	Sep 26, 1944	9	70	SS1	23.3			La Nina
Not Named	Jun 30, 1945	1	35	TS	18.0		E	Neutral
Not Named	Sep 16, 1946	4	50	TS	26.2		E	Neutral
Not Named	Sep 02, 1948	3	45	TS	35.8		E	Neutral
Not Named	Sep 10, 1949	4	60	TS	46.0		E	La Nina
George	Oct 05, 1950	7	60	TS	46.6		E	Neutral
Baker	Sep 08, 1952	3	60	TS	24.4		E	Neutral
Not Named	Oct 08, 1953	10	60	TS	31.4		E	Neutral
Ione	Sep 22, 1955	9	45	TS	20.1		E	La Nina
Frieda	Sep 27, 1957	7	35	TS	24.5		E	El Nino
Not Named	Jun 21, 1959	3	45	TS	29.2		E	Neutral
Ella	Oct 22, 1962	5	60	TS	37.8		E	Neutral
Cleo	Sep 04, 1964	5	70	SS1	22.3			La Nina
Dora	Sep 15, 1964	6	55	TS	27.8		E	La Nina
Debbie	Aug 24, 1969	4	70	SS1	28.1			El Nino
Gilda	Oct 28, 1973	8	55	TS	43.1	968	E	La Nina
Gladys	Oct 03, 1975	7	85	SS2	51.6	960		La Nina
Dorothy	Sep 30, 1977	4	50	TS	30.1	995	E	Neutral
Dean	Aug 08, 1989	4	45	TS	38.5	995		Neutral
Bob	Aug 21, 1991	2	35	TS	25.6	1009	E	El Nino
Allison	Jun 09, 1995	1	40	TS	28.8	996	E	Neutral
Luis	Sep 11, 1995	12	80	SS1	57.6	963		Neutral
Bertha	Jul 15, 1996	2	50	TS	36.3	995	E	Neutral
Josephine	Oct 10, 1996	10	45	TS	36.0	983	E	Neutral
Earl	Sep 06, 1998	5	55	TS	13.3	964	E	La Nina
Floyd	Sep 19, 1999	6	40	TS	31.2	992	E	La Nina
Irene	Oct 19, 1999	9	80	SS1	35.8	968	E	La Nina
Leslie	Oct 08, 2000	12	35	TS	32.2	1005	E	La Nina

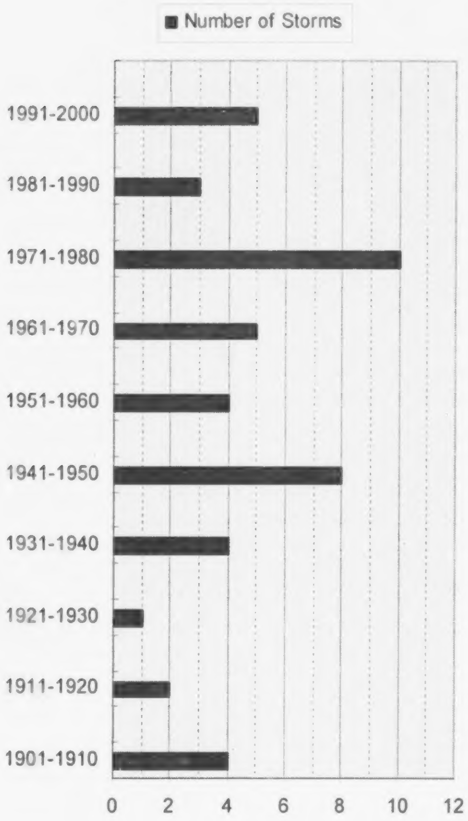
Northern Grand Banks



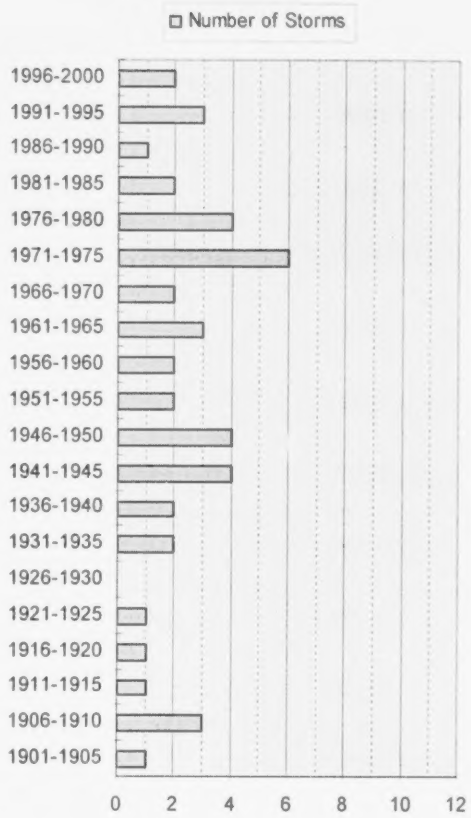


Northern Grand Banks Marine Area Boundaries:
48.5°N 51.5°W due south to 46°N 51.5°W then due east along latitude 46°N to intersect an arc of a circle centred on Cape Race and of radius 250 nautical miles (distance from Cape Race to 42.5°N 55°W), then northward along that arc to latitude 48.5°N then due west to 48.5°N 51.5°W.

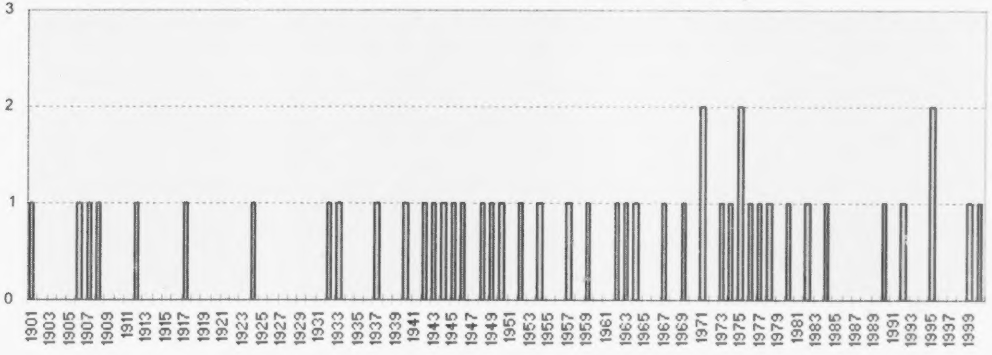
Storm Frequency - Ten Year Periods
(Northern Grand Banks)



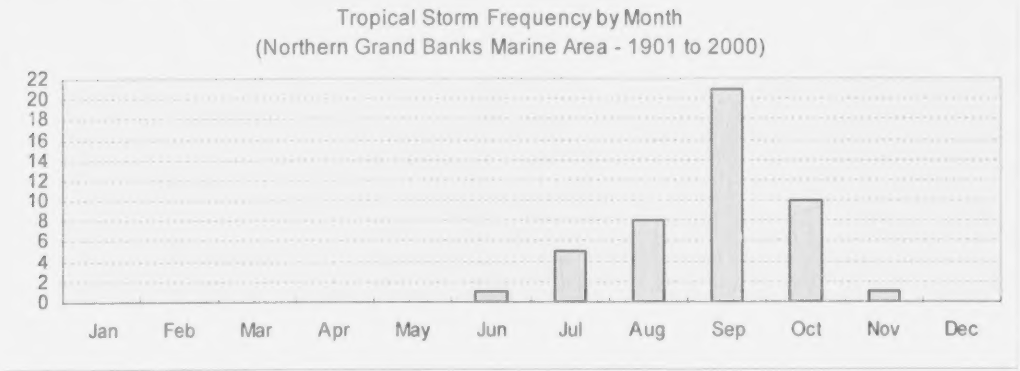
Storm Frequency - Five Year Periods
(Northern Grand Banks)



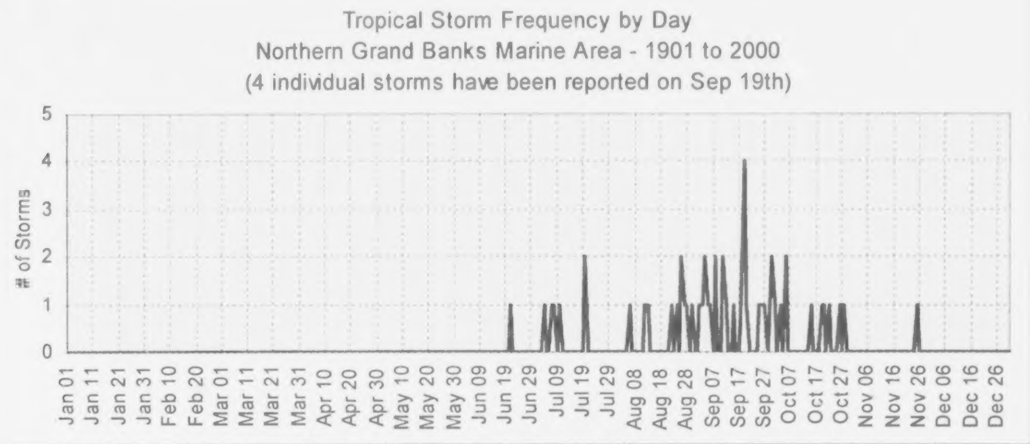
Tropical Storm Frequency by Year
(Northern Grand Banks Marine Area - 1901 to 2000)



Note: Storms that span months were counted in both months



Note: Storms will generally span more than one day. The storm is counted in each day



Northern Grand Banks – Summary Statistics

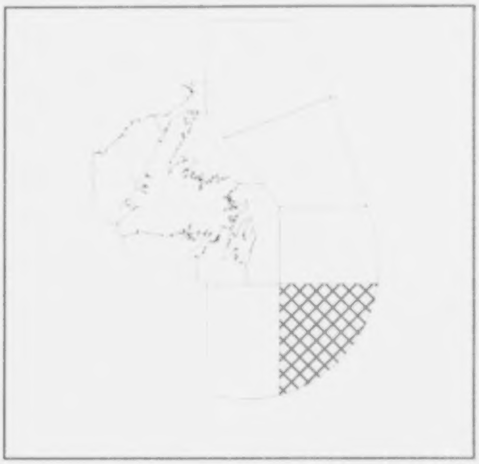
100 Yr	TD	TS	G	S	S1	S2	S3	S4	S5	H	<H	ALL	Sys-Spd
#	1	30	13	17	12	2	1	0	0	15	31	46	32.3
Return	100	3.3	7.7	5.9	8.3	50	100	NA	NA	6.7	3.2	2.2	
50 Yr	**TD**	**TS**	**G**	**S**	**S1**	**S2**	**S3**	**S4**	**S5**	**H**	**<H**	**ALL**	**Sys-Spd**
#	0	17	5	12	7	2	1	0	0	10	17	27	32.3
Return	NA	2.9	10	4.2	7.1	25	50	NA	NA	5	2.9	1.9	

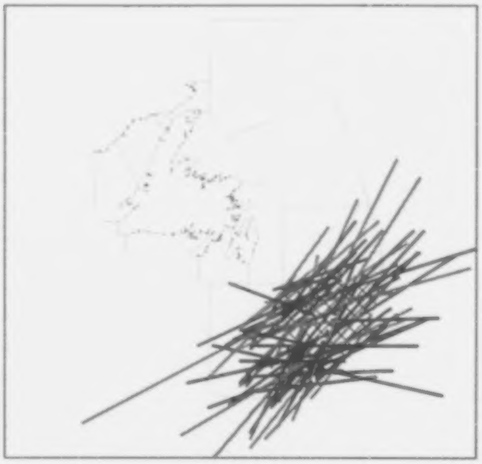
Northern Grand Banks – Storm Details

Name	Date	Storm #	MaxWind (kts)	SS Scale	AvgSysSpd (kts)	Pres (mb)	Comment	ENSO
Not Named	Oct 01, 1901	8	35	TS	32.7		E	Neutral
Not Named	Sep 11, 1906	3	75	SS1	42.3			La Nina
Not Named	Oct 20, 1907	4	40	TS	31.4		E	Neutral
Not Named	Sep 19, 1908	4	55	TS	22.8		E	La Nina
Not Named	Nov 25, 1912	6	55	TS	47.5		E	Neutral

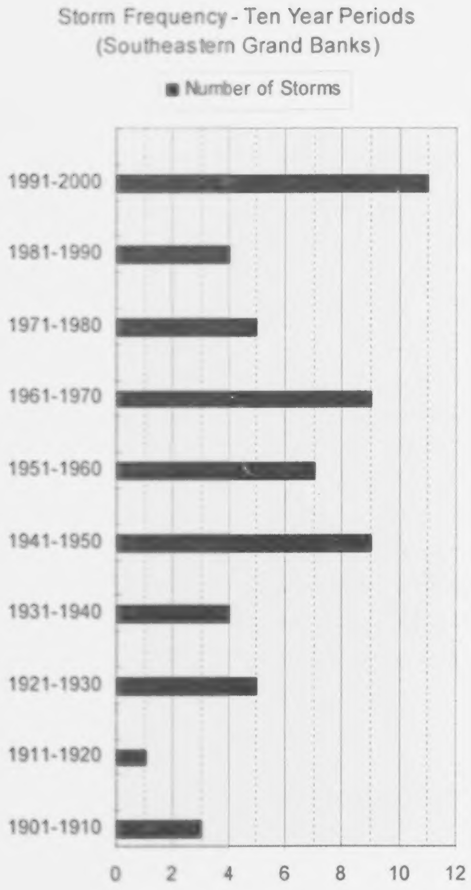
Name	Date	Storm #	MaxWind (kts)	SS Scale	AvgSysSpd (kts)	Pres (mb)	Comment	ENSO
Not Named	Sep 06, 1917	2	80	SS1	37.4		E	Neutral
Not Named	Sep 19, 1924	4	40	TS	62.0		E	La Nina
Not Named	Sep 11, 1932	4	60	TS	26.8		E	Neutral
Not Named	Aug 30, 1933	9	35	TS	20.1		E	Neutral
Not Named	Sep 30, 1937	8	35	TS	22.1		E	Neutral
Not Named	Sep 19, 1940	5	35	TS	22.5		E	El Nino
Not Named	Oct 05, 1942	7	35	TS	27.6		E	La Nina
Not Named	Aug 26, 1943	3	55	TS	27.8		E	Neutral
Not Named	Sep 26, 1944	9	70	SS1	30.8			La Nina
Not Named	Sep 20, 1945	9	25	TD	31.0		E	Neutral
Not Named	Jul 10, 1946	2	40	TS	17.4		E	Neutral
Not Named	Sep 15, 1948	6	70	SS1	40.8			Neutral
Not Named	Aug 26, 1949	1	65	SS1	23.8		E	La Nina
George	Oct 05, 1950	7	60	TS	46.6		E	Neutral
Baker	Sep 08, 1952	3	65	SS1	26.0			Neutral
Dolly	Sep 03, 1954	4	55	TS	32.2		E	La Nina
Frieda	Sep 27, 1957	7	35	TS	24.5		E	El Nino
Not Named	Jun 21, 1959	3	45	TS	29.2		E	Neutral
Ella	Oct 22, 1962	5	60	TS	32.4		E	Neutral
Beulah	Aug 28, 1963	2	70	SS1	42.7			El Nino
Cleo	Sep 04, 1964	5	75	SS1	20.8	970		La Nina
Arlene	Sep 04, 1967	1	60	TS	19.7			La Nina
Blanche	Aug 12, 1969	2	60	TS	41.8		E	El Nino
Arlene	Jul 07, 1971	1	45	TS	25.7		E	La Nina
Not Named	Aug 06, 1971	2	75	SS1	40.7	974		La Nina
Gilda	Oct 28, 1973	8	55	TS	38.0		E	La Nina
Subtrop 2	Jul 20, 1974	2	40	TS	20.3		E	Neutral
Amy	Jul 04, 1975	1	50	TS	35.5	986		La Nina
Gladys	Oct 03, 1975	7	85	SS2	52.7	960		La Nina
Candice	Aug 24, 1976	4	80	SS1	26.1			El Nino
Dorothy	Sep 29, 1977	4	60	TS	29.4	990	E	Neutral
Ella	Sep 05, 1978	6	105	SS3	39.5	960		Neutral
Georges	Sep 08, 1980	7	68	SS1	37.5	993		Neutral
Debby	Sep 19, 1982	5	90	SS2	27.1	970		El Nino
Cesar	Sep 02, 1984	4	50	TS	10.8	994		Neutral
Lili	Oct 15, 1990	12	40	TS	37.9	994	E	Neutral
Frances	Oct 26, 1992	7	60	TS	17.0	987		Neutral
Chantal	Jul 20, 1995	3	50	TS	33.8	1000	E	Neutral
Felix	Aug 22, 1995	6	50	TS	40.5	986		Neutral
Irene	Oct 19, 1999	9	80	SS1	37.5	968	E	La Nina
Helene	Sep 25, 2000	8	55	TS	51.8	988		La Nina

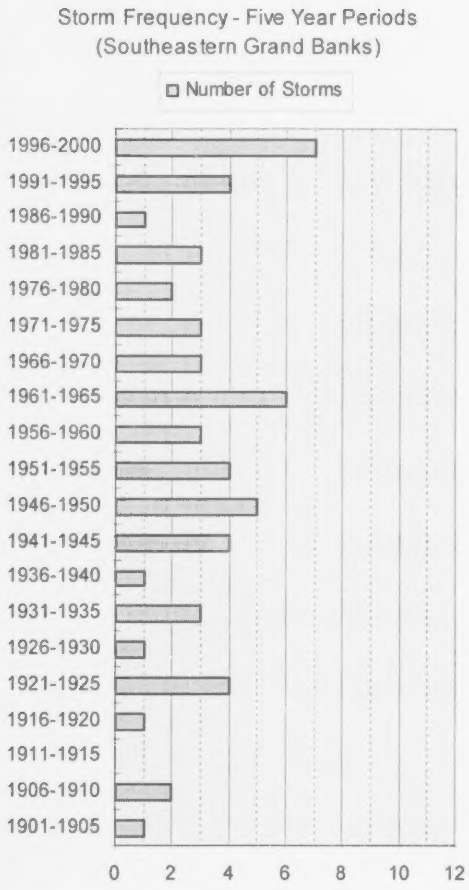
Southeastern Grand Banks

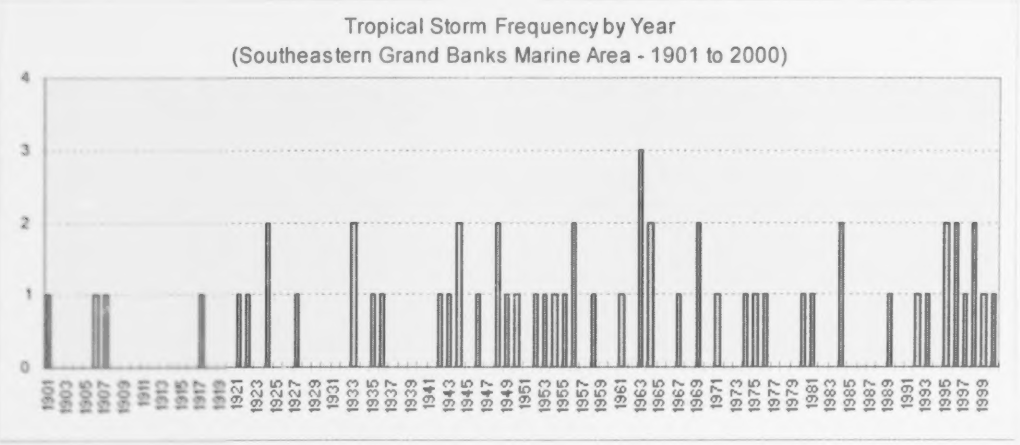




Southeastern Grand Banks Marine Area Boundaries:
46°N 51.5°W due east to intersect an arc of a circle centred on Cape Race and of radius 250 nautical miles (distance from Cape Race to 42.5°N 55°W), then southwestward along that arc to longitude 51.5°W then due north to 46°N 51.5°W.


Storm Frequency - Ten Year Periods
(Southeastern Grand Banks)
■ Number of Storms
1991-2000
1981-1990
1971-1980
1961-1970
1951-1960
1941-1950
1931-1940
1921-1930
1911-1920
1901-1910
0
2
4
6
8
10
12


Storm Frequency - Five Year Periods
(Southeastern Grand Banks)
□ Number of Storms
1996-2000
1991-1995
1986-1990
1981-1985
1976-1980
1971-1975
1966-1970
1961-1965
1956-1960
1951-1955
1946-1950
1941-1945
1936-1940
1931-1935
1926-1930
1921-1925
1916-1920
1911-1915
1906-1910
1901-1905
0
2
4
6
8
10
12


Tropical Storm Frequency by Year
(Southeastern Grand Banks Marine Area - 1901 to 2000)
4
3
2
1
0
1901
1903
1905
1907
1909
1911
1913
1915
1917
1919
1921
1923
1925
1927
1929
1931
1933
1935
1937
1939
1941
1943
1945
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1955
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1961
1963
1965
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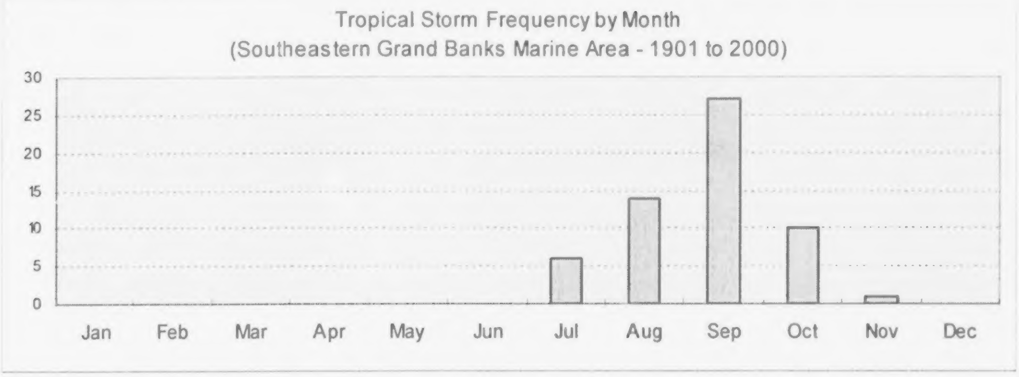
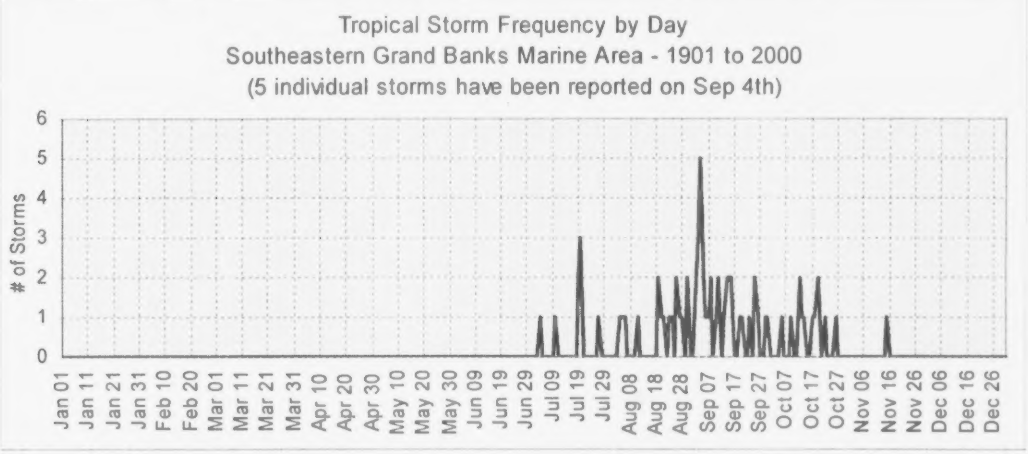
1991
1993
1995
1997
1999

Note: Storms that span months were counted in both months



Note: Storms will generally span more than one day. The storm is counted in each day



Southeastern Grand Banks – Summary Statistics

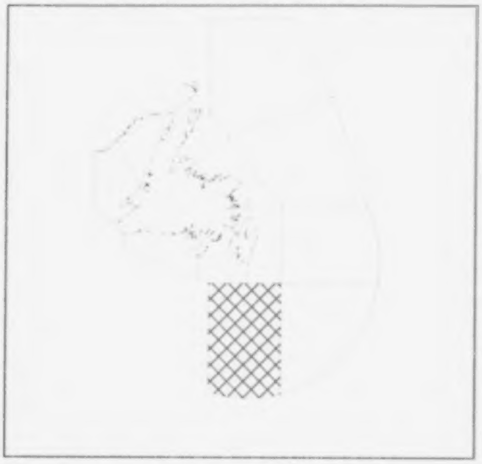
100 Yr	**TD**	**TS**	**G**	**S**	**S1**	**S2**	**S3**	**S4**	**S5**	**H**	**<H**	**ALL**	**Sys-Spd**
#	3	28	17	11	23	4	0	0	0	27	31	58	30.7
Return	33.3	3.6	5.9	9.1	4.3	25	NA	NA	NA	3.7	3.2	1.7	
50 Yr	**TD**	**TS**	**G**	**S**	**S1**	**S2**	**S3**	**S4**	**S5**	**H**	**<H**	**ALL**	**Sys-Spd**
#	3	17	10	7	15	1	0	0	0	16	20	36	30.7
Return	16.7	2.9	5	7.1	3.3	50	NA	NA	NA	3.1	2.5	1.4	

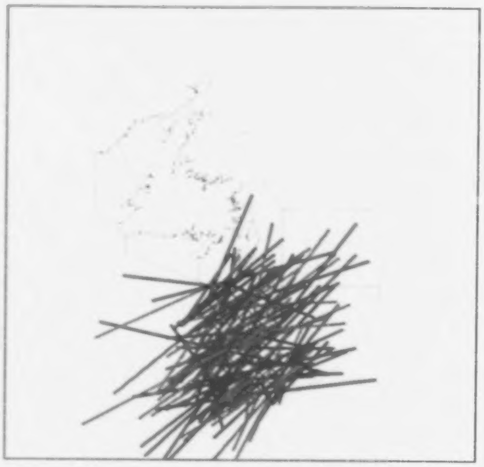
Southeastern Grand Banks – Storm Details

Name	Date	Storm #	MaxWind (kts)	SS Scale	AvgSysSpd (kts)	Pres (mb)	Comment	ENSO
Not Named	Oct 13, 1901	9	35	TS	27.6		E	Neutral
Not Named	Sep 11, 1906	3	75	SS1	37.8			La Nina
Not Named	Oct 19, 1907	4	40	TS	34.3			Neutral
Not Named	Sep 05, 1917	2	90	SS2	34.3			Neutral
Not Named	Sep 16, 1921	3	90	SS2	52.1			Neutral

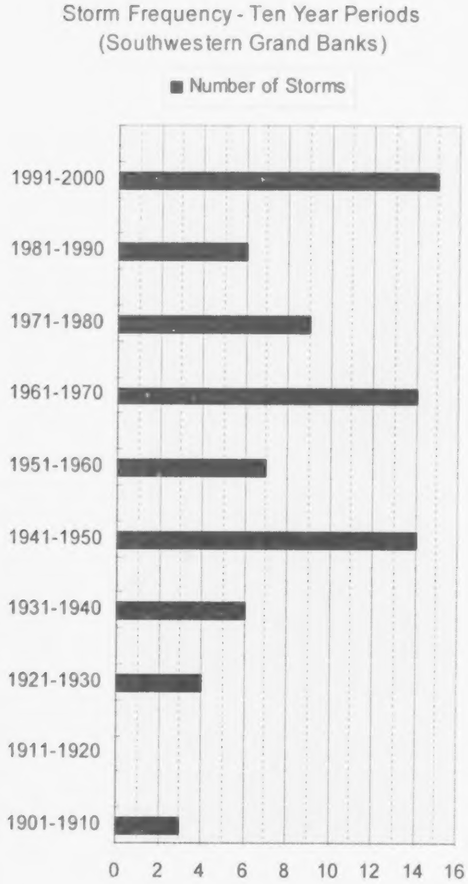
Name	Date	Storm #	MaxWind (kts)	SS Scale	AvgSysSpd (kts)	Pres (mb)	Comment	ENSO
Not Named	Sep 23, 1922	2	95	SS2	18.9		E	La Nina
Not Named	Sep 19, 1924	4	40	TS	43.7		E	La Nina
Not Named	Nov 15, 1924	8	40	TS	31.9		E	La Nina
Not Named	Sep 29, 1927	4	80	SS1	13.0		E	Neutral
Not Named	Aug 30, 1933	9	35	TS	22.1			Neutral
Not Named	Oct 09, 1933	18	65	SS1	40.9		E	Neutral
Not Named	Sep 07, 1935	2	80	SS1	40.0		E	Neutral
Not Named	Sep 20, 1936	13	70	SS1	22.1			Neutral
Not Named	Oct 05, 1942	7	35	TS	27.4		E	La Nina
Not Named	Aug 26, 1943	3	60	TS	26.0		E	Neutral
Not Named	Jul 19, 1944	1	50	TS	37.2		E	La Nina
Not Named	Sep 26, 1944	9	80	SS1	23.3			La Nina
Not Named	Jul 10, 1946	2	40	TS	17.5		E	Neutral
Not Named	Sep 15, 1948	6	70	SS1	39.5			Neutral
Not Named	Sep 25, 1948	7	50	TS	38.6		E	Neutral
Not Named	Aug 26, 1949	1	65	SS1	25.0		E	La Nina
Dog	Sep 14, 1950	4	50	TS	25.6		E	Neutral
Baker	Sep 08, 1952	3	65	SS1	27.5			Neutral
Hazel	Oct 12, 1953	12	35	TS	25.6		E	Neutral
Dolly	Sep 03, 1954	4	55	TS	32.7		E	La Nina
Diane	Aug 21, 1955	3	35	TS	27.8		E	La Nina
Betsy	Aug 19, 1956	3	45	TS	22.7		E	La Nina
Carla	Sep 11, 1956	4	25	TD	31.1			La Nina
Cleo	Aug 19, 1958	3	80	SS1	33.1	979		Neutral
Gerda	Oct 22, 1961	8	30	TD	27.7		E	Neutral
Arlene	Aug 11, 1963	1	65	SS1	26.8		E	El Nino
Beulah	Aug 27, 1963	2	70	SS1	44.5			El Nino
Flora	Oct 12, 1963	7	75	SS1	23.6			El Nino
Cleo	Sep 04, 1964	5	75	SS1	31.9			La Nina
Ethel	Sep 14, 1964	7	75	SS1	24.3	969		La Nina
Arlene	Sep 03, 1967	1	75	SS1	18.6			La Nina
Anna	Aug 04, 1969	1	45	TS	44.4		E	El Nino
Kara	Oct 18, 1969	14	90	SS2	45.0			El Nino
Not Named	Aug 06, 1971	2	75	SS1	40.7	974		La Nina
Subtrop 2	Jul 19, 1974	2	45	TS	15.5		S	Neutral
Amy	Jul 04, 1975	1	50	TS	35.5	986		La Nina
Candice	Aug 23, 1976	4	80	SS1	22.9			El Nino
Georges	Sep 08, 1980	7	70	SS1	38.5	993		Neutral
Cindy	Aug 05, 1981	3	40	TS	18.5	1006		Neutral
Subtrop 1	Aug 20, 1984	1	45	TS	21.9	1000	S	Neutral
Cesar	Sep 02, 1984	4	50	TS	10.8	994		Neutral
Gabrielle	Sep 13, 1989	7	30	TD	18.3	1010		Neutral
Frances	Oct 26, 1992	7	60	TS	18.7	985		Neutral
Floyd	Sep 10, 1993	6	65	SS1	42.4	990		Neutral
Chantal	Jul 20, 1995	3	50	TS	32.8	1000		Neutral
Iris	Sep 04, 1995	9	65	SS1	30.5	987		Neutral
Edouard	Sep 04, 1996	5	50	TS	12.1	995	E	Neutral
Hortense	Sep 16, 1996	8	40	TS	29.8	998	E	Neutral
Danny	Jul 27, 1997	5	40	TS	59.4	1004	E	El Nino
Bonnie	Aug 30, 1998	2	45	TS	30.8	1000		La Nina
Danielle	Sep 03, 1998	4	65	SS1	28.1	965		La Nina
Irene	Oct 19, 1999	9	80	SS1	58.2	968		La Nina
Helene	Sep 25, 2000	8	55	TS	51.8	988		La Nina

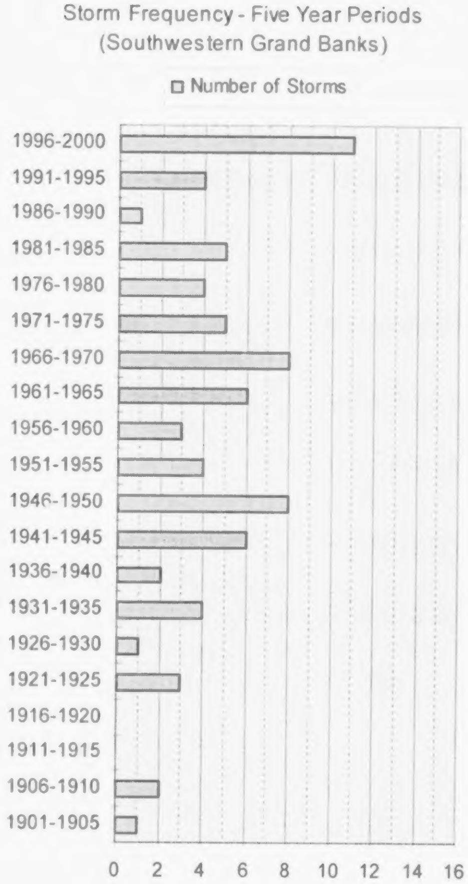
Southwestern Grand Banks

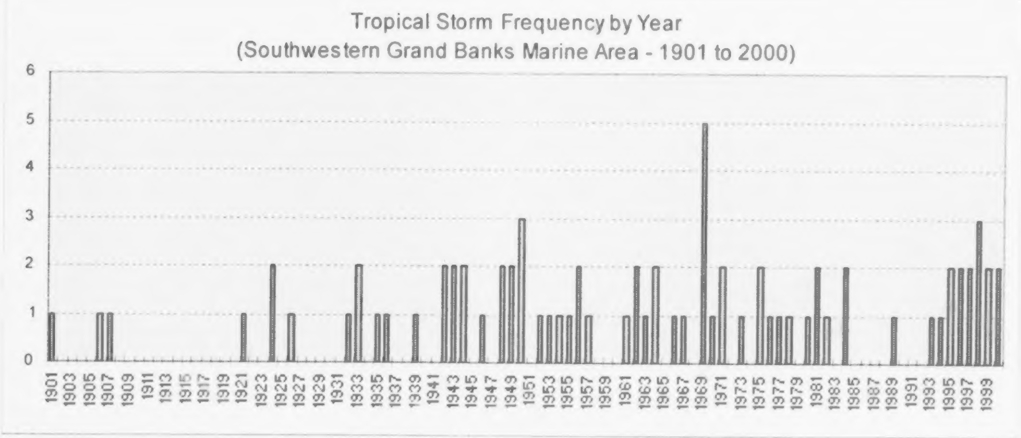




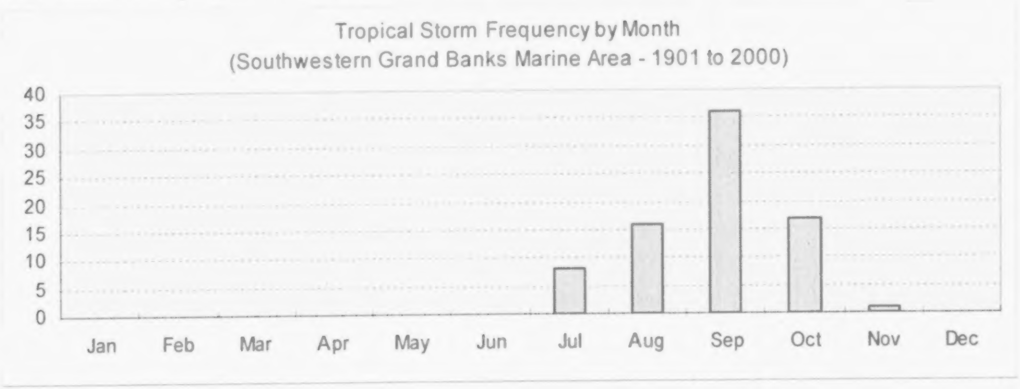
Southwestern Grand Banks Marine Area Boundaries:
42.5°N 55°W due north to 46°N 55°W, east to 46°N 51.5°W then due south to intersect an arc of a circle centred on Cape Race and of radius 250 nautical miles (distance from Cape Race to 42.5°N 55°W), then westward along that arc to 42.5°N 55°W.


Storm Frequency - Ten Year Periods (Southwestern Grand Banks)

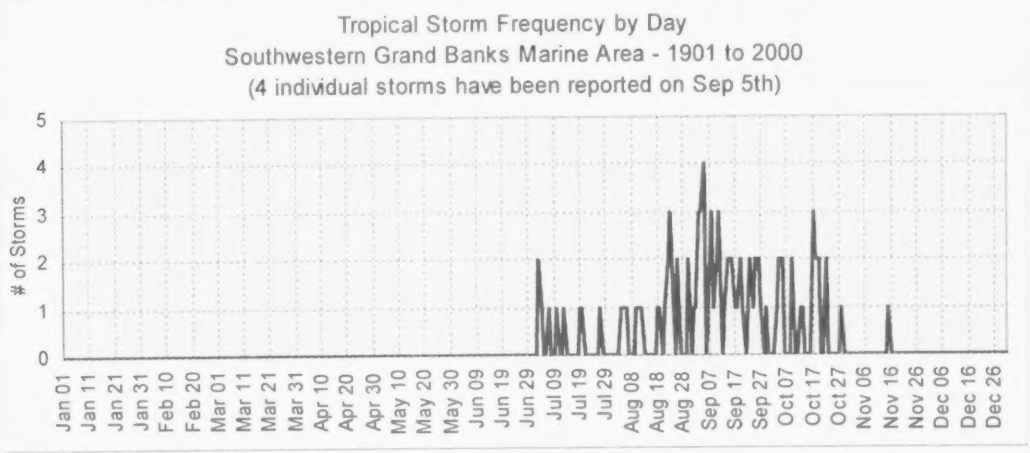

Storm Frequency - Five Year Periods (Southwestern Grand Banks)


Tropical Storm Frequency by Year (Southwestern Grand Banks Marine Area - 1901 to 2000)

Note: Storms that span months were counted in both months



Note: Storms will generally span more than one day. The storm is counted in each day



Southwestern Grand Banks – Summary Statistics

100 Yr	**TD**	**TS**	**G**	**S**	**S1**	**S2**	**S3**	**S4**	**S5**	**H**	**<H**	**ALL**	**Sys-Spd**
#	3	42	19	23	27	4	1	1	0	33	45	78	30.4
Return	33.3	2.4	5.3	4.3	3.7	25	100	100	NA	3	2.2	1.3	
50 Yr	**TD**	**TS**	**G**	**S**	**S1**	**S2**	**S3**	**S4**	**S5**	**H**	**<H**	**ALL**	**Sys-Spd**
#	3	28	9	19	15	3	1	1	0	20	31	51	31.1
Return	16.7	1.8	5.6	2.6	3.3	16.7	50	50	NA	2.5	1.6	1	

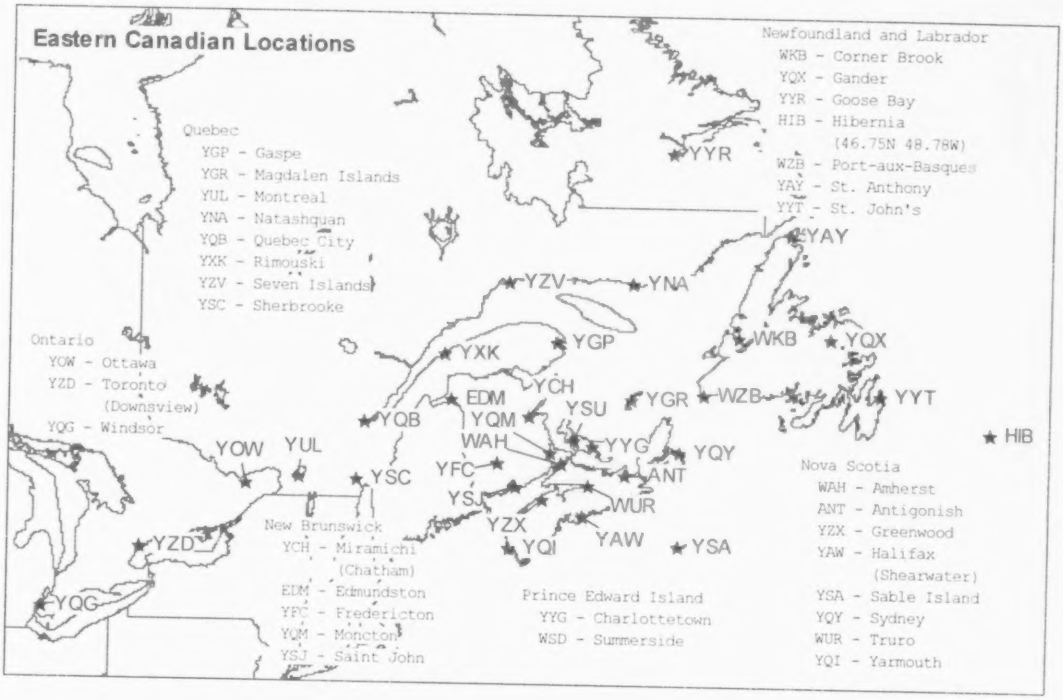
Southwestern Grand Banks – Storm Details

Name	Date	Storm #	MaxWind (kts)	SS Scale	AvgSysSpd (kts)	Pres (mb)	Comment	ENSO
Not Named	Oct 13, 1901	9	35	TS	23.0		E	Neutral
Not Named	Sep 11, 1906	3	80	SS1	35.4			La Nina
Not Named	Oct 19, 1907	4	45	TS	37.3			Neutral
Not Named	Sep 16, 1921	3	90	SS2	52.1			Neutral
Not Named	Sep 19, 1924	4	40	TS	25.5		E	La Nina

Name	Date	Storm #	MaxWind (kts)	SS Scale	AvgSysSpd (kts)	Pres (mb)	Comment	ENSO
Not Named	Nov 15, 1924	8	40	TS	31.9		E	La Nina
Not Named	Sep 22, 1926	4	60	TS	13.2		E	Neutral
Not Named	Sep 11, 1932	4	65	SS1	15.4		E	Neutral
Not Named	Aug 30, 1933	9	35	TS	24.6			Neutral
Not Named	Oct 09, 1933	18	70	SS1	40.0		E	Neutral
Not Named	Sep 07, 1935	2	80	SS1	40.4		E	Neutral
Not Named	Sep 20, 1936	13	70	SS1	27.1			Neutral
Not Named	Oct 18, 1939	4	80	SS1	34.0			Neutral
Not Named	Sep 24, 1942	5	35	TS	17.1		E	La Nina
Not Named	Oct 04, 1942	7	40	TS	27.3		E	La Nina
Not Named	Aug 26, 1943	3	65	SS1	33.0			Neutral
Not Named	Oct 04, 1943	8	35	TS	15.6		E	Neutral
Not Named	Jul 19, 1944	1	50	TS	37.2		E	La Nina
Not Named	Sep 26, 1944	9	80	SS1	10.4			La Nina
Not Named	Jul 10, 1946	2	45	TS	18.9		E	Neutral
Not Named	Sep 15, 1948	6	75	SS1	38.3			Neutral
Not Named	Sep 25, 1948	7	55	TS	33.2		E	Neutral
Not Named	Aug 26, 1949	1	65	SS1	27.6		E	La Nina
Not Named	Sep 10, 1949	4	65	SS1	36.9		E	La Nina
Charlie	Sep 05, 1950	3	45	TS	25.7		E	Neutral
Dog	Sep 14, 1950	4	50	TS	21.6		E	Neutral
George	Oct 05, 1950	7	65	SS1	41.2		E	Neutral
Baker	Sep 08, 1952	3	70	SS1	39.5			Neutral
Hazel	Oct 12, 1953	12	40	TS	26.5		E	Neutral
Dolly	Sep 03, 1954	4	65	SS1	34.0		E	La Nina
Diane	Aug 21, 1955	3	35	TS	28.9		E	La Nina
Betsy	Aug 18, 1956	3	50	TS	24.6		E	La Nina
Carla	Sep 11, 1956	4	25	TD	31.1			La Nina
Frieda	Sep 26, 1957	7	50	TS	22.8		E	El Nino
Gerda	Oct 22, 1961	8	30	TD	27.0		E	Neutral
Daisy	Oct 09, 1962	4	50	TS	20.2		E	Neutral
Ella	Oct 22, 1962	5	60	TS	43.2		E	Neutral
Arlene	Aug 10, 1963	1	80	SS1	28.0			El Nino
Cleo	Sep 04, 1964	5	75	SS1	41.3			La Nina
Ethel	Sep 14, 1964	7	75	SS1	24.8			La Nina
Becky	Jul 03, 1966	2	60	TS	19.2			Neutral
Arlene	Sep 03, 1967	1	75	SS1	21.8			La Nina
Anna	Aug 04, 1969	1	45	TS	39.1		E	El Nino
Blanche	Aug 12, 1969	2	65	SS1	42.3	998		El Nino
Camille	Aug 22, 1969	3	55	TS	38.2			El Nino
Debbie	Aug 23, 1969	4	90	SS2	21.6			El Nino
Kara	Oct 17, 1969	14	85	SS2	46.3	978		El Nino
Not Named	Oct 17, 1970	9	70	SS1	55.2	980		La Nina
Arlene	Jul 07, 1971	1	45	TS	29.3			La Nina
Not Named	Aug 06, 1971	2	60	TS	34.0			La Nina
Gilda	Oct 28, 1973	8	55	TS	33.0		E	La Nina
Amy	Jul 03, 1975	1	50	TS	32.5	986		La Nina
Gladys	Oct 03, 1975	7	85	SS2	53.7	960		La Nina
Candice	Aug 23, 1976	4	80	SS1	13.8			El Nino
Dorothy	Sep 29, 1977	4	65	SS1	27.4	988		Neutral
Ella	Sep 04, 1978	6	115	SS4	40.5	956		Neutral
Georges	Sep 08, 1980	7	70	SS1	39.4	993		Neutral
Cindy	Aug 05, 1981	3	45	TS	21.5	1005		Neutral
Emily	Sep 07, 1981	5	65	SS1	7.2	978		Neutral
Debby	Sep 18, 1982	5	100	SS3	26.4	960		El Nino

Name	Date	Storm #	MaxWind (kts)	SS Scale	AvgSysSpd (kts)	Pres (mb)	Comment	ENSO
Cesar	Sep 02, 1984	4	45	TS	14.0	998		Neutral
Josephine	Oct 17, 1984	11	60	TS	7.0	990		Neutral
Gabrielle	Sep 13, 1989	7	30	TD	17.2	1009		Neutral
Floyd	Sep 09, 1993	6	65	SS1	40.8	990		Neutral
Chris	Aug 23, 1994	3	45	TS	35.7	1003		Neutral
Chantal	Jul 20, 1995	3	50	TS	30.5	999		Neutral
Felix	Aug 22, 1995	6	50	TS	41.9	986		Neutral
Edouard	Sep 04, 1996	5	50	TS	13.3	994	E	Neutral
Hortense	Sep 15, 1996	8	60	TS	21.8	982		Neutral
Bill	Jul 13, 1997	3	60	TS	29.8	990		El Nino
Danny	Jul 27, 1997	5	40	TS	59.4	1004	E	El Nino
Bonnie	Aug 30, 1998	2	45	TS	25.4	1000		La Nina
Danielle	Sep 03, 1998	4	70	SS1	24.0	960		La Nina
Earl	Sep 05, 1998	5	50	TS	24.4	986	E	La Nina
Gert	Sep 23, 1999	7	60	TS	26.2	964		La Nina
Irene	Oct 19, 1999	9	80	SS1	58.2	968		La Nina
Florence	Sep 17, 2000	6	55	TS	31.6	995		La Nina
Helene	Sep 25, 2000	8	55	TS	51.8	988		La Nina

CITY STATISTICS


Eastern Canadian Locations
Quebec
YGP - Gaspe
YGR - Magdalen Islands
YUL - Montreal
YNA - Natashquan
YQB - Quebec City
YXK - Rimouski
YZV - Seven Islands
YSC - Sherbrooke
Ontario
YOW - Ottawa
YZD - Toronto (Downsview)
YQG - Windsor
New Brunswick
YCH - Miramichi (Chatham)
EDM - Edmundston
YFC - Fredericton
YQM - Moncton
YSJ - Saint John
Prince Edward Island
YYG - Charlottetown
WSD - Summerside
Newfoundland and Labrador
WKB - Corner Brook
YQX - Gander
YYR - Goose Bay
HIB - Hibernia (46.75N 48.78W)
WZB - Port-aux-Basques
YAY - St. Anthony
YYT - St. John's
Nova Scotia
WAH - Amherst
ANT - Antigonish
YZX - Greenwood
YAW - Halifax (Shearwater)
YSA - Sable Island
YQY - Sydney
WUR - Truro
YQI - Yarmouth
YYR
YAY
YZV
YNA
WKB
YQX
YXK
YGP
EDM
YCH
YGR
WZB
YYT
HIB
YQB
YQM
YSU
WAH
YYG
YQY
YOW
YUL
YSC
YFC
ANT
YSJ
WUR
YZX
YZD
YQI
YAW
YSA
YQG

The Barks and Richards Atlantic region study of 1986 determined that tropical storms that passed within 400 km of a site could generate trace amounts or rain. Storms that passed within 260 km of the site often produced gale force winds (>33 knots). Using these criteria, a number of eastern Canadian sites were examined with respect to the proximity of tropical storm passages.

- See *Appendix II* for the full Barks and Richards paper.
- ***See the interpretation cautions outlined in the Introduction***

Notes:

1. Numbers shown on some graphs may vary somewhat from the tabular storm listings. The storm details tables show the date on which the first occurrence of the highest wind was reported. A storm may have taken more than 6 hours to cross a given area. Thus it is possible to show more storms for say September 15th on the *frequency by day* table than are shown in the storm details table. (example: a storm reaches the area late on the 14th with 50 knots maximum sustained wind… it is still over the area on the 15th but with 40 knot winds. It counts as *both* a September 14th and a

September 15th storm on the *frequency by day* table but the storm details table will show the 14th since that is the date of maximum wind.)

2. The last column in the storm details tables *R(km) R/W*, indicates whether the particular storm passed within 260 km of the site (potential rain and wind situation) or was between 260 and 400 km of the site (a possible rain situation). If the storm was classified as a *tropical depression*, the winds would be less than 35 knots by definition and slightly different labeling was used. See the table below:

Label	**Explanation**
260 R/W	Storm was within 260 km of the site and was not a tropical depression. Potential for both trace rain amounts and gale force winds (>33 knots).
400 R	Storm passed between 260 and 400 km of the site and was not a tropical depression. Potential gale force winds to 400 km..
260 TD	A tropical depression that passed within 260 km of the site… winds less than 35 knots by definition
400 TD	A tropical depression that passed between 260 and 400 km of the site… winds less than 35 knots by definition.

Summary Table - Statistics for 33 Eastern Canadian Points

100 Year (1901–2000)	TD	TS	G	S	S1	S2	S3	S4	S5	H	<H	ALL	Spd
Corner Brook, NL 260km	1	36	18	18	9	2	0	0	0	11	37	48	28.8
Corner Brook, NL 400km	4	50	24	26	23	2	0	0	0	25	54	79	29.9
Gander, NL 260km	3	40	18	22	10	2	0	0	0	12	43	55	31
Gander, NL 400km	2	52	24	28	22	4	1	0	0	27	54	81	30.3
Goose Bay , NL (Labrador) 260km	1	6	1	5	0	0	0	0	0	0	7	7	29.8
Goose Bay , NL (Labrador) 400km	4	15	7	8	1	1	0	0	0	2	19	21	31.1
Hibernia, NL 260km	1	34	16	18	20	2	1	0	0	23	35	58	31
Hibernia, NL 400km	4	58	27	31	32	6	2	0	0	40	62	102	31.4
Port-aux-Basques, NL 260km	4	41	19	22	16	2	0	0	0	18	45	63	29.2
Port-aux-Basques, NL 400km	3	56	27	29	27	5	0	0	0	32	59	91	29
St. Anthony, NL 260km	2	24	12	12	5	1	0	0	0	6	26	32	29.3
St. Anthony, NL 400km	4	42	20	22	10	2	0	0	0	12	46	58	28.7
St. John's, NL 260km	2	38	16	22	15	3	1	0	0	19	40	59	31.6
St. John's, NL 400km	4	57	28	29	31	3	1	1	0	36	61	97	31
Amherst, NS 260km	3	32	14	18	17	6	0	0	0	23	35	58	27.8
Amherst, NS 400km	11	47	18	29	32	6	1	0	0	39	58	97	28.9
Antigonish, NS 260km	4	39	16	23	23	5	0	0	0	28	43	71	28.3
Antigonish, NS 400km	9	55	25	30	38	11	0	1	0	50	64	114	28.5
Greenwood, NS 260km	4	35	16	19	20	5	1	0	0	26	39	65	27.8
Greenwood, NS 400km	10	50	24	26	38	9	2	0	0	49	60	109	26.9
Halifax (Shearwater), NS 260km	5	40	18	22	27	6	0	0	0	33	45	78	27.7
Halifax (Shearwater), NS 400km	9	59	25	34	39	10	3	1	0	53	68	121	28.1
Sable Island, NS 260km	6	48	21	27	30	8	1	1	0	40	54	94	28.6
Sable Island, NS 400km	9	67	30	37	49	15	2	1	0	67	76	143	28.7
Sydney, NS 260km	3	41	17	24	23	3	0	0	0	26	44	70	28.8
Sydney, NS 400km	8	60	26	34	33	10	1	1	0	45	68	113	29
Truro, NS 260km	4	39	16	23	23	5	0	0	0	28	43	71	28
Truro, NS 400km	10	53	23	30	34	9	1	0	0	44	63	107	27.3
Yarmouth, NS 260km	5	35	15	20	25	7	2	0	0	34	40	74	27.2
Yarmouth, NS 400km	10	55	26	29	39	9	3	0	0	51	65	116	26.1
Charlottetown, PE 260km	4	30	13	17	19	5	0	0	0	24	34	58	27.8
Charlottetown, PE 400km	8	49	21	28	31	6	0	0	0	37	57	94	28.6
Summerside, PE 260km	4	30	12	18	15	5	0	0	0	20	34	54	27.9
Summerside, PE 400km	10	45	19	26	28	5	1	0	0	34	55	89	29.4
Edmundston, NB 260km	8	17	11	6	5	1	0	0	0	6	25	31	30.5
Edmundston, NB 400km	11	24	16	8	9	3	1	0	0	13	35	48	30
Fredericton, NB 260km	8	24	14	10	12	3	1	0	0	16	32	48	30.7
Fredericton, NB 400km	13	38	19	19	27	6	1	0	0	34	51	85	27.3
Miramichi (Chatham), NB 260km	8	28	13	15	4	4	0	0	0	8	36	44	31.9
Miramichi (Chatham), NB 400km	11	33	17	16	22	5	1	0	0	28	44	72	28.2
Moncton, NB 260km	4	29	14	15	13	5	0	0	0	18	33	51	28.3
Moncton, NB 400km	12	45	18	27	30	5	1	0	0	36	57	93	28.4
Saint John, NB 260km	3	24	12	12	14	4	1	0	0	19	27	46	28.4
Saint John, NB 400km	13	43	20	23	31	8	1	0	0	40	56	96	27.1
Gaspé, QB 260km	5	23	14	9	1	2	0	0	0	3	28	31	29.3
Gaspé, QB 400km	8	39	18	21	7	4	0	0	0	11	47	58	29.7
Îles-de-la-Madeleine, QB 260km	4	34	16	18	14	3	0	0	0	17	38	55	28.8
Îles-de-la-Madeleine, QB 400km	5	49	21	28	25	7	0	0	0	32	54	86	29.5
Montreal, QB 260km	6	8	8	0	2	1	0	0	0	3	14	17	28.7
Montreal, QB 400km	10	19	15	4	4	4	0	0	0	8	29	37	26.6
Natashquan, QB 260km	3	17	9	8	2	1	0	0	0	3	20	23	29.7
Natashquan, QB 400km	5	36	20	16	10	3	0	0	0	13	41	54	28.9
Quebec, QB 260km	8	7	7	0	4	0	0	0	0	4	15	19	30.3

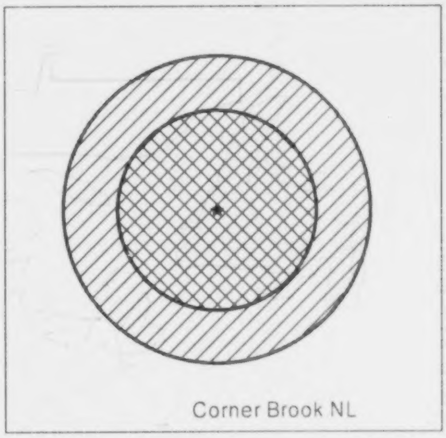
100 Year (1901–2000)	TD	TS	G	S	S1	S2	S3	S4	S5	H	<H	ALL	Spd
Quebec, QB 400km	10	17	13	4	6	3	0	0	0	9	27	36	28.7
Rimouski, QB 260km	9	10	7	3	1	1	0	0	0	2	19	21	30.7
Rimouski, QB 400km	8	20	12	8	5	2	0	0	0	7	28	35	29.5
Sept-Illes, QB 260km	5	8	6	2	1	1	0	0	0	2	13	15	33.7
Sept-Illes, QB 400km	8	22	15	7	1	2	0	0	0	3	30	33	29.8
Sherbrooke, QB 260km	10	13	11	2	3	3	0	0	0	6	23	29	27.9
Sherbrooke, QB 400km	14	25	17	8	6	4	1	0	0	11	39	50	26.6
Ottawa, ON 260km	5	6	5	1	2	0	0	0	0	2	11	13	28.1
Ottawa, ON 400km	9	14	11	3	2	2	0	0	0	4	23	27	25.7
Toronto (Downsview), ON 260km	6	9	8	1	1	0	0	0	0	1	15	16	22.8
Toronto (Downsview), ON 400km	9	14	12	2	1	0	0	0	0	1	23	24	24.8
Windsor, ON 260km	7	4	4	0	0	0	0	0	0	0	11	11	22.5
Windsor, ON 400km	17	11	10	1	0	0	0	0	0	0	28	28	24.2

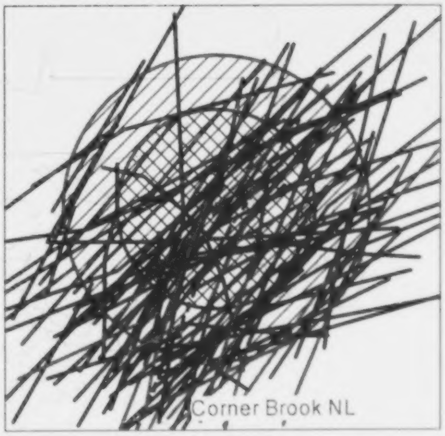
50 Year (1951–2000)	TD	TS	G	S	S1	S2	S3	S4	S5	H	<H	ALL	Spd
Corner Brook, NL 260km	0	19	8	11	3	1	0	0	0	4	19	23	29.7
Corner Brook, NL 400km	1	31	12	19	11	1	0	0	0	12	32	44	30.7
Gander, NL 260km	1	21	9	12	5	1	0	0	0	6	22	28	31.9
Gander, NL 400km	0	32	12	20	10	3	1	0	0	14	32	46	31.5
Goose Bay , NL (Labrador) 260km	0	6	1	5	0	0	0	0	0	0	6	6	30.2
Goose Bay , NL (Labrador) 400km	2	8	2	6	1	0	0	0	0	1	10	11	31.9
Hibernia, NL 260km	0	21	7	14	12	2	1	0	0	15	21	36	31.7
Hibernia, NL 400km	3	37	15	22	19	4	2	0	0	25	40	65	32.2
Port-aux-Basques, NL 260km	1	26	10	16	8	1	0	0	0	9	27	36	29.9
Port-aux-Basques, NL 400km	2	36	14	22	14	2	0	0	0	16	38	54	30.2
St. Anthony, NL 260km	1	12	5	7	3	0	0	0	0	3	13	16	30.6
St. Anthony, NL 400km	0	24	10	14	4	1	0	0	0	5	24	29	28.3
St. John's, NL 260km	0	24	9	15	8	3	1	0	0	12	24	36	32.4
St. John's, NL 400km	1	34	14	20	18	3	1	1	0	23	35	58	32.7
Amherst, NS 260km	1	19	7	12	8	2	0	0	0	10	20	30	28.2
Amherst, NS 400km	6	32	8	24	18	2	1	0	0	21	38	59	29.2
Antigonish, NS 260km	2	26	8	18	14	1	0	0	0	15	28	43	29.1
Antigonish, NS 400km	5	34	11	23	22	4	0	1	0	27	39	66	30.6
Greenwood, NS 260km	3	21	7	14	9	1	1	0	0	11	24	35	28.3
Greenwood, NS 400km	5	30	10	20	23	4	1	0	0	28	35	63	27.5
Halifax (Shearwater), NS 260km	3	26	9	17	14	2	0	0	0	16	29	45	28.4
Halifax (Shearwater), NS 400km	6	36	10	26	23	4	2	1	0	30	42	72	30.1
Sable Island, NS 260km	4	33	11	22	20	3	1	1	0	25	37	62	30.8
Sable Island, NS 400km	7	42	14	28	31	4	2	1	0	38	49	87	29.4
Sydney, NS 260km	1	27	10	17	12	1	0	0	0	13	28	41	29.3
Sydney, NS 400km	5	39	12	27	19	3	1	1	0	24	44	68	30.7
Truro, NS 260km	2	24	7	17	13	1	0	0	0	14	26	40	28.4
Truro, NS 400km	5	32	10	22	20	2	1	0	0	23	37	60	28.8
Yarmouth, NS 260km	4	21	6	15	12	3	1	0	0	16	25	41	27.7
Yarmouth, NS 400km	6	34	9	25	22	4	2	0	0	28	40	68	26.9
Charlottetown, PE 260km	1	17	7	10	11	1	0	0	0	12	18	30	28.3
Charlottetown, PE 400km	3	32	10	22	17	2	0	0	0	19	35	54	29.1
Summerside, PE 260km	1	15	5	10	7	2	0	0	0	9	16	25	28.1
Summerside, PE 400km	4	28	8	20	17	1	1	0	0	19	32	51	30.2
Edmundston, NB 260km	3	10	6	4	5	1	0	0	0	6	13	19	33.6
Edmundston, NB 400km	5	17	10	7	5	1	1	0	0	7	22	29	29.9
Fredericton, NB 260km	4	14	7	7	5	1	1	0	0	7	18	25	30.8
Fredericton, NB 400km	7	25	10	15	13	2	1	0	0	16	32	48	27.8
Miramichi (Chatham), NB 260km	3	17	7	10	2	2	0	0	0	4	20	24	32
Miramichi (Chatham), NB 400km	5	20	9	11	11	1	1	0	0	13	25	38	28.9

50 Year (1951–2000)	TD	TS	G	S	S1	S2	S3	S4	S5	H	<H	ALL	Spd
Moncton, NB 260km	1	15	6	9	7	2	0	0	0	9	16	25	28
Moncton, NB 400km	6	31	8	23	16	1	1	0	0	18	37	55	29.1
Saint John, NB 260km	2	15	5	10	5	1	1	0	0	7	17	24	27.3
Saint John, NB 400km	7	26	9	17	16	4	1	0	0	21	33	54	27.8
Gaspé, QB 260km	1	13	6	7	1	2	0	0	0	3	14	17	32.1
Gaspé, QB 400km	3	22	8	14	4	2	0	0	0	6	25	31	31.5
Îles-de-la-Madeleine, QB 260km	1	20	8	12	9	1	0	0	0	10	21	31	29.3
Îles-de-la-Madeleine, QB 400km	1	29	10	19	15	3	0	0	0	18	30	48	30.2
Montreal, QB 260km	3	5	5	0	2	0	0	0	0	2	8	10	32.9
Montreal, QB 400km	5	13	9	4	2	3	0	0	0	5	18	23	29.8
Natashquan, QB 260km	0	10	4	6	2	0	0	0	0	2	10	12	31
Natashquan, QB 400km	1	21	9	12	4	2	0	0	0	6	22	28	30.5
Quebec, QB 260km	3	5	5	0	3	0	0	0	0	3	8	11	33.9
Quebec, QB 400km	5	11	7	4	4	2	0	0	0	6	16	22	30.8
Rimouski, QB 260km	3	6	4	2	1	1	0	0	0	2	9	11	34.2
Rimouski, QB 400km	3	11	6	5	5	2	0	0	0	7	14	21	32.5
Sept-Illes, QB 260km	1	4	2	2	1	1	0	0	0	2	5	7	35.1
Sept-Illes, QB 400km	3	13	7	6	1	2	0	0	0	3	16	19	34.1
Sherbrooke, QB 260km	5	9	7	2	2	2	0	0	0	4	14	18	30.6
Sherbrooke, QB 400km	8	16	8	8	2	3	1	0	0	6	24	30	27.8
Ottawa, ON 260km	3	3	2	1	1	0	0	0	0	1	6	7	37.4
Ottawa, ON 400km	3	8	6	2	2	1	0	0	0	3	11	14	31.5
Toronto (Downsview), ON 260km	3	4	3	1	1	0	0	0	0	1	7	8	27.4
Toronto (Downsview), ON 400km	4	7	6	1	1	0	0	0	0	1	11	12	29.3
Windsor, ON 260km	3	2	2	0	0	0	0	0	0	0	5	5	22.8
Windsor, ON 400km	8	6	6	0	0	0	0	0	0	0	14	14	27.5

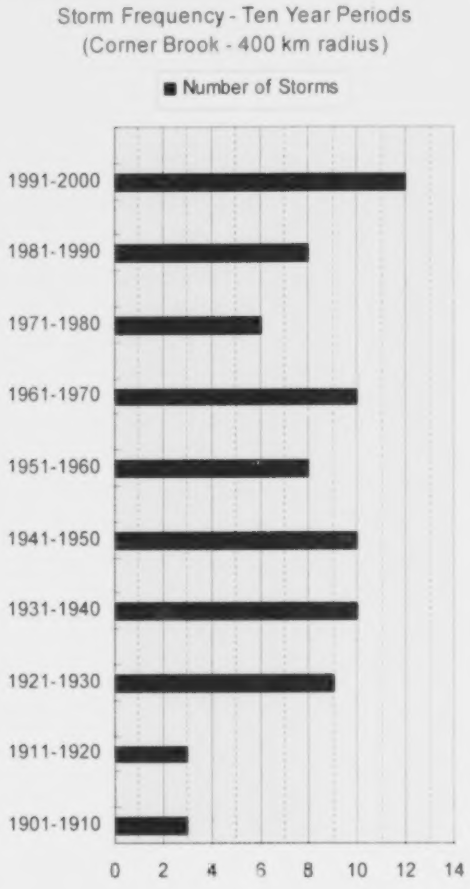
Newfoundland

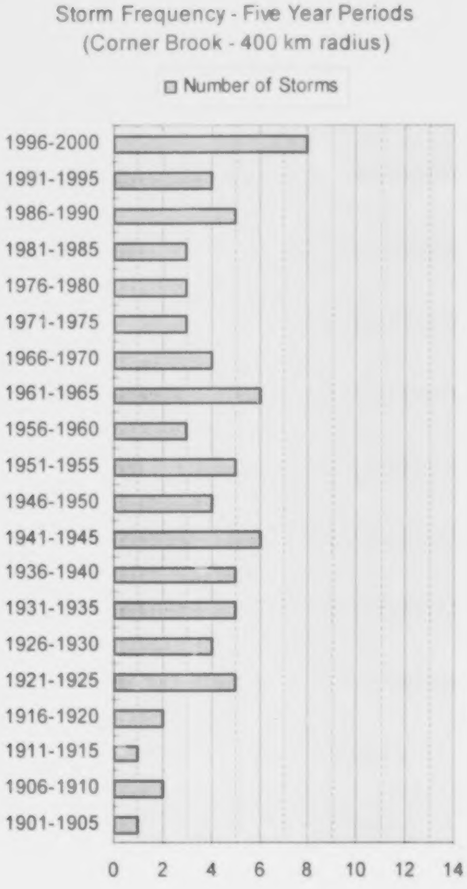
Corner Brook

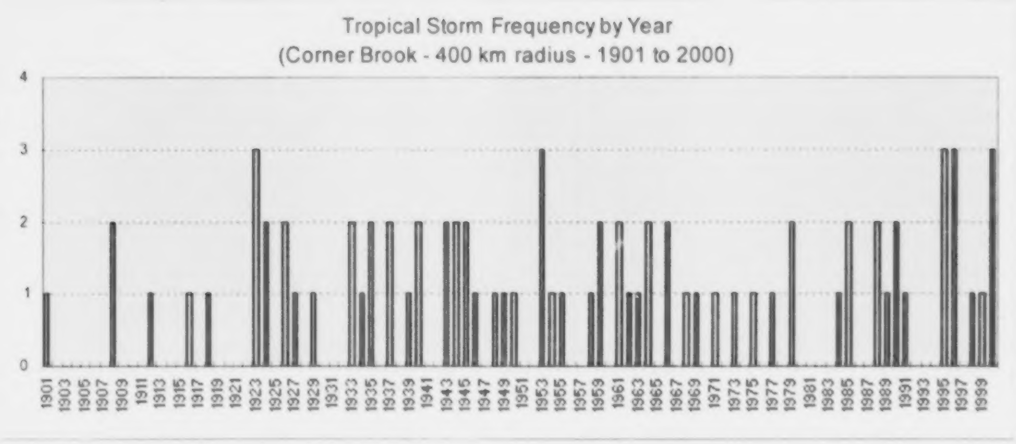




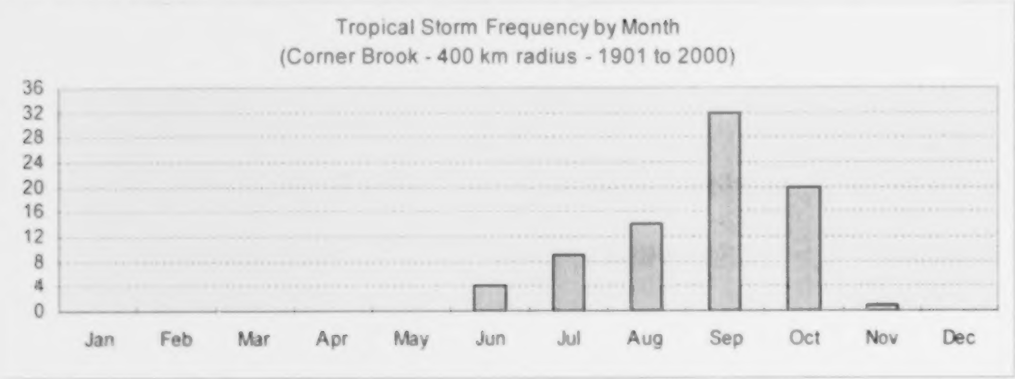
400 km Graphs - Frequency by Time-Periods (1901-2000)



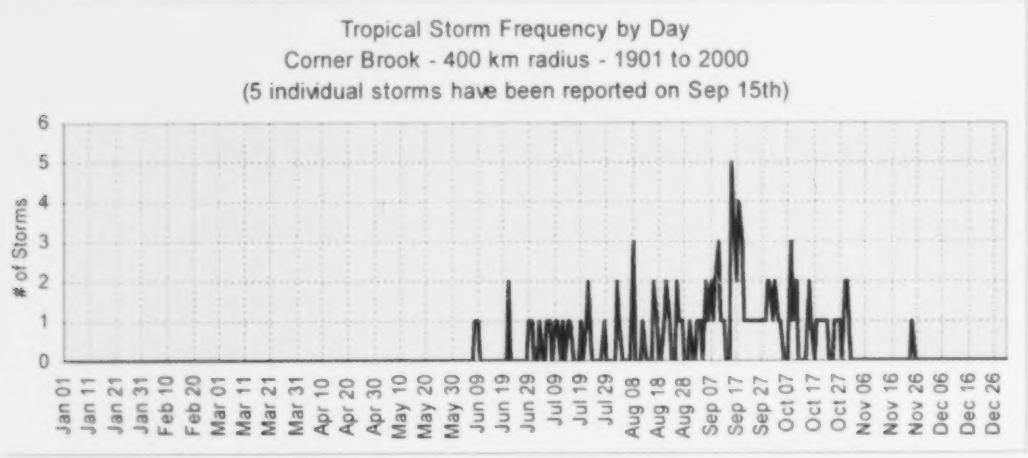




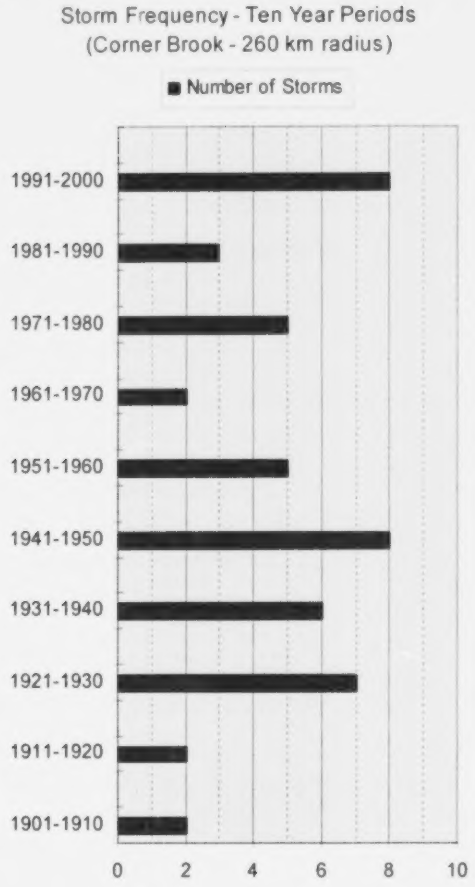
Note: Storms that span months were counted in both months

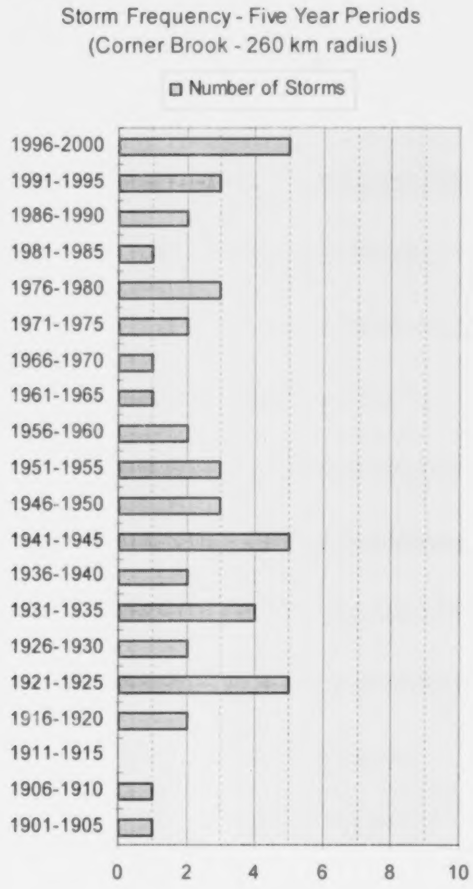


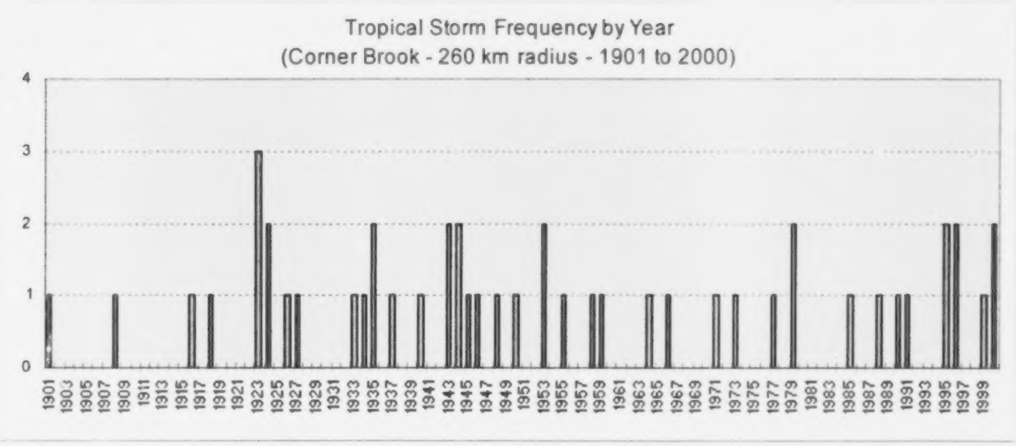
Note: Storms will generally span more than one day. The storm is counted in each day



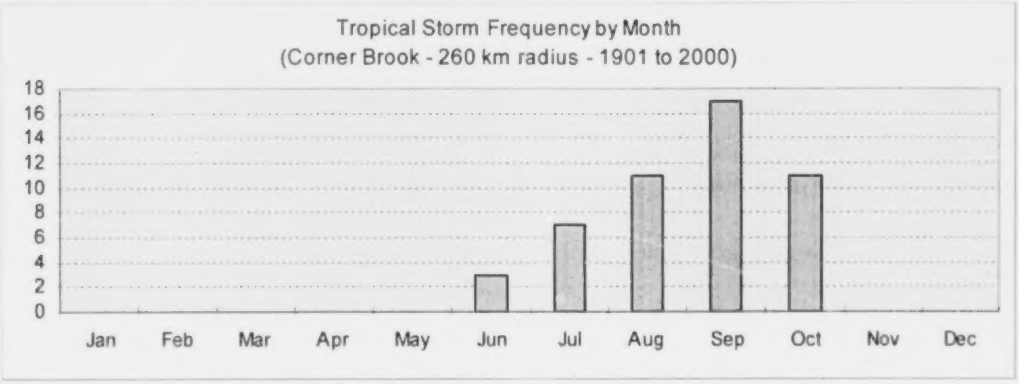
260 km Graphs - Frequency by Time-Periods (1901-2000)


Storm Frequency - Ten Year Periods
(Corner Brook - 260 km radius)


Storm Frequency - Five Year Periods
(Corner Brook - 260 km radius)

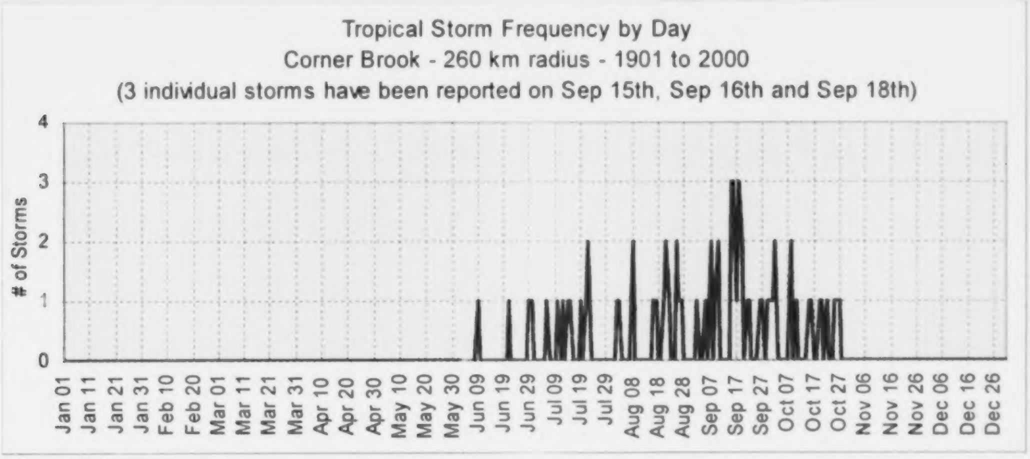

Tropical Storm Frequency by Year
(Corner Brook - 260 km radius - 1901 to 2000)

Note: Storms that span months were counted in both months



Tropical Storm Frequency by Month
(Corner Brook - 260 km radius - 1901 to 2000)

Note: Storms will generally span more than one day. The storm is counted in each day



Tropical Storm Frequency by Day
Corner Brook - 260 km radius - 1901 to 2000
(3 individual storms have been reported on Sep 15th, Sep 16th and Sep 18th)

Corner Brook – Summary Statistics 260 km Radius (gale swath)

100 Yr	**TD**	**TS**	**G**	**S**	**S1**	**S2**	**S3**	**S4**	**S5**	**H**	**<H**	**ALL**	**Sys-Spd**
#	1	36	18	18	9	2	0	0	0	11	37	48	28.8
Return	100	2.8	5.6	5.6	11.1	50	NA	NA	NA	9.1	2.7	2.1	
50 Yr	**TD**	**TS**	**G**	**S**	**S1**	**S2**	**S3**	**S4**	**S5**	**H**	**<H**	**ALL**	**Sys-Spd**
#	0	19	8	11	3	1	0	0	0	4	19	23	29.7
Return	NA	2.6	6.3	4.5	16.7	50	NA	NA	NA	12.5	2.6	2.2	

Corner Brook – Summary Statistics 400 km Radius (trace precipitation swath)

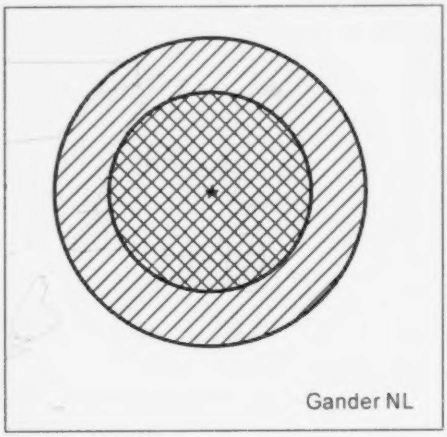
100 Yr	**TD**	**TS**	**G**	**S**	**S1**	**S2**	**S3**	**S4**	**S5**	**H**	**<H**	**ALL**	**Sys-Spd**
#	4	50	24	26	23	2	0	0	0	25	54	79	29.9
Return	25	2	4.2	3.8	4.3	50	NA	NA	NA	4	1.9	1.3	
50 Yr	**TD**	**TS**	**G**	**S**	**S1**	**S2**	**S3**	**S4**	**S5**	**H**	**<H**	**ALL**	**Sys-Spd**
#	1	31	12	19	11	1	0	0	0	12	32	44	30.7
Return	50	1.6	4.2	2.6	4.5	50	NA	NA	NA	4.2	1.6	1.1	

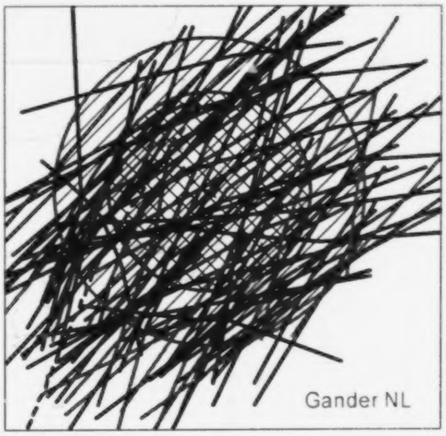
Corner Brook – Storms that Tracked within 400 km of Site (R) and within 260 km of the Site (R/W)

Name	Date	S#	MaxWind (kts)	SS Scale	AvgSysSpd (kts)	Pres (mb)	Comment	ENSO	R(km) R/W
Not Named	Oct 01, 1901	8	35	TS	27.5		E	Neutral	400 R
Not Named	Aug 02, 1908	2	75	SS1	24.9		E	La Nina	400 R
Not Named	Sep 18, 1908	4	70	SS1	24.7			La Nina	400 R
Not Named	Nov 24, 1912	6	60	TS	40.5		E	Neutral	400 R
Not Named	Jul 22, 1916	2	45	TS	40.6			La Nina	400 R
Not Named	Sep 07, 1918	4	40	TS	20.2		E	El Nino	400 R
Not Named	Sep 09, 1923	1	65	SS1	24.7			Neutral	400 R
Not Named	Oct 02, 1923	2	75	SS1	17.9		E	Neutral	400 R
Not Named	Oct 27, 1923	4	35	TS	19.6		E	Neutral	400 R
Not Named	Aug 27, 1924	2	80	SS1	29.5		E	La Nina	400 R
Not Named	Sep 05, 1924	3	65	SS1	26.9		E	La Nina	400 R
Not Named	Aug 08, 1926	2	65	SS1	25.9		E	Neutral	400 R
Not Named	Sep 23, 1926	4	55	TS	17.1		E	Neutral	400 R
Not Named	Aug 25, 1927	1	90	SS2	46.7		E	Neutral	400 R
Not Named	Oct 04, 1929	2	25	TD	62.0		E	El Nino	400 TD
Not Named	Sep 18, 1933	13	60	TS	15.1		E	Neutral	400 R
Not Named	Oct 29, 1933	20	55	TS	11.6		E	Neutral	400 R
Not Named	Jun 21, 1934	2	35	TS	16.4		E	Neutral	400 R
Not Named	Aug 25, 1935	1	70	SS1	10.4		E	Neutral	400 R
Not Named	Oct 02, 1935	4	65	SS1	30.6		E	Neutral	400 R
Not Named	Sep 26, 1937	7	70	SS1	26.5		E	Neutral	400 R
Not Named	Sep 30, 1937	8	35	TS	26.1		E	Neutral	400 R
Not Named	Oct 18, 1939	4	80	SS1	35.3			Neutral	400 R
Not Named	Sep 03, 1940	4	35	TS	32.4			El Nino	400 R
Not Named	Sep 17, 1940	5	45	TS	13.9			El Nino	400 R
Not Named	Sep 09, 1943	4	60	TS	34.7			Neutral	400 R
Not Named	Sep 16, 1943	5	35	TS	29.9		E	Neutral	400 R
Not Named	Sep 15, 1944	7	35	TS	42.1	982	E	La Nina	400 R
Not Named	Oct 22, 1944	11	45	TS	32.5		E	La Nina	400 R
Not Named	Jun 29, 1945	1	40	TS	26.3		E	Neutral	400 R
Not Named	Sep 20, 1945	9	25	TD	40.7		E	Neutral	400 TD
Not Named	Sep 15, 1946	4	55	TS	33.2		E	Neutral	400 R
Not Named	Sep 02, 1948	3	50	TS	38.3		E	Neutral	400 R
Not Named	Sep 10, 1949	4	65	SS1	41.5		E	La Nina	400 R
Able	Aug 21, 1950	1	30	TD	26.1			Neutral	400 TD
Barbara	Aug 16, 1953	2	55	TS	41.7		E	Neutral	400 R
Carol	Sep 08, 1953	4	60	TS	30.6		E	Neutral	400 R
Not Named	Oct 08, 1953	10	60	TS	27.3		E	Neutral	400 R
Edna	Sep 12, 1954	5	60	TS	40.8		E	La Nina	400 R
Ione	Sep 21, 1955	9	50	TS	20.2		E	La Nina	400 R
Helene	Sep 29, 1958	8	70	SS1	40.7	963		Neutral	400 R
Not Named	Jun 21, 1959	3	45	TS	26.0		E	Neutral	400 R
Cindy	Jul 12, 1959	4	45	TS	29.1		E	Neutral	400 R
Not Named	Sep 15, 1961	6	35	TS	60.6			Neutral	400 R
Frances	Oct 10, 1961	7	35	TS	35.1		E	Neutral	400 R
Daisy	Oct 08, 1962	4	50	TS	19.5		E	Neutral	400 R
Ginny	Oct 30, 1963	8	80	SS1	21.1		E	El Nino	400 R
Dora	Sep 15, 1964	6	55	TS	26.6		E	La Nina	400 R
Gladys	Sep 24, 1964	9	60	TS	46.8	990	E	La Nina	400 R
Becky	Jul 03, 1966	2	45	TS	14.4		E	Neutral	400 R
Celia	Jul 21, 1966	3	65	SS1	32.6	998		Neutral	400 R
Gladys	Oct 21, 1968	8	65	SS1	25.0	975	E	Neutral	400 R
Blanche	Aug 12, 1969	2	65	SS1	42.3	998		El Nino	400 R
Beth	Aug 16, 1971	3	65	SS1	16.4			La Nina	400 R

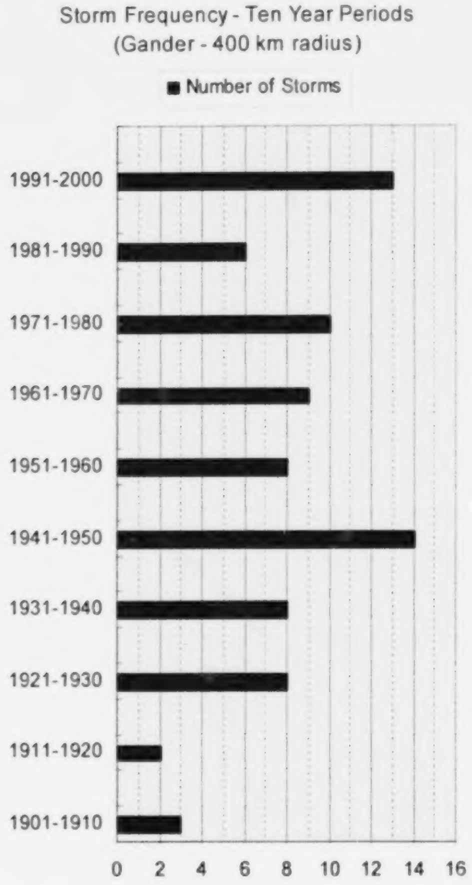
Name	Date	S#	MaxWind (kts)	SS Scale	AvgSysSpd (kts)	Pres (mb)	Comment	ENSO	R(km) R/W
Alice	Jul 06, 1973	1	60	TS	36.9	991		La Nina	400 R
Blanche	Jul 28, 1975	2	60	TS	37.5	988	E	La Nina	400 R
Evelyn	Oct 15, 1977	5	70	SS1	19.0	998		Neutral	400 R
David	Sep 07, 1979	4	55	TS	36.3	986	E	Neutral	400 R
Subtrop 1	Oct 25, 1979	9	60	TS	42.9	980	S	Neutral	400 R
Diana	Sep 16, 1984	5	60	TS	38.4	994		Neutral	400 R
Ana	Jul 19, 1985	1	60	TS	27.7	996		Neutral	400 R
Gloria	Sep 28, 1985	7	50	TS	24.3	987	E	Neutral	400 R
Alberto	Aug 08, 1988	1	35	TS	30.5	1006		La Nina	400 R
Chris	Aug 30, 1988	3	25	TD	38.0	1008		La Nina	400 TD
Dean	Aug 08, 1989	4	65	SS1	34.5	978		Neutral	400 R
Bertha	Aug 02, 1990	2	70	SS1	21.2	973		Neutral	400 R
Lili	Oct 15, 1990	12	40	TS	37.1	995	E	Neutral	400 R
Bob	Aug 20, 1991	2	45	TS	25.7	998		El Nino	400 R
Allison	Jun 08, 1995	1	45	TS	26.8	993	E	Neutral	400 R
Barry	Jul 09, 1995	2	50	TS	22.7	991		Neutral	400 R
Luis	Sep 11, 1995	12	80	SS1	49.0	965		Neutral	400 R
Bertha	Jul 14, 1996	2	50	TS	33.0	995	E	Neutral	400 R
Hortense	Sep 15, 1996	8	65	SS1	18.0	980		Neutral	400 R
Josephine	Oct 10, 1996	10	45	TS	30.7	985	E	Neutral	400 R
Earl	Sep 05, 1998	5	50	TS	16.2	986	E	La Nina	400 R
Floyd	Sep 18, 1999	6	35	TS	26.2	992	E	La Nina	400 R
Leslie	Oct 08, 2000	12	40	TS	35.2	1003	E	La Nina	400 R
Michael	Oct 19, 2000	13	85	SS2	25.7	965		La Nina	400 R
Subtrop	Oct 29, 2000	15	50	TS	20.3	980	E	La Nina	400 R

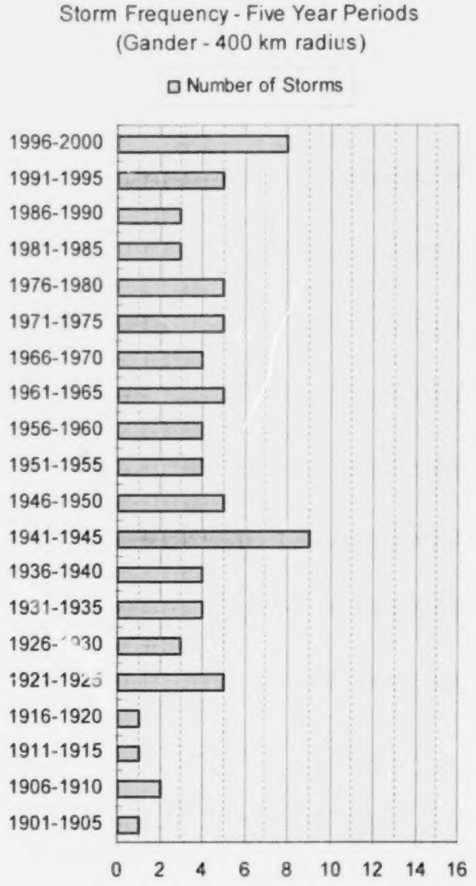
Gander

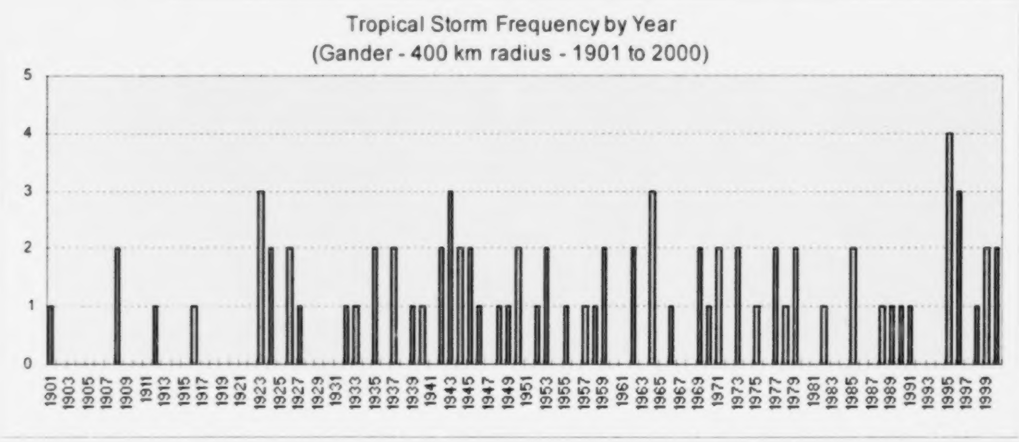




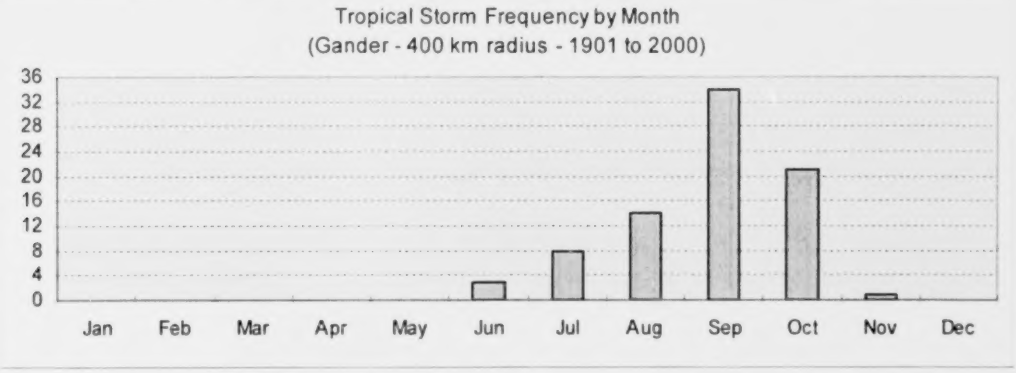
400 km Graphs - Frequency by Time-Periods (1901-2000)



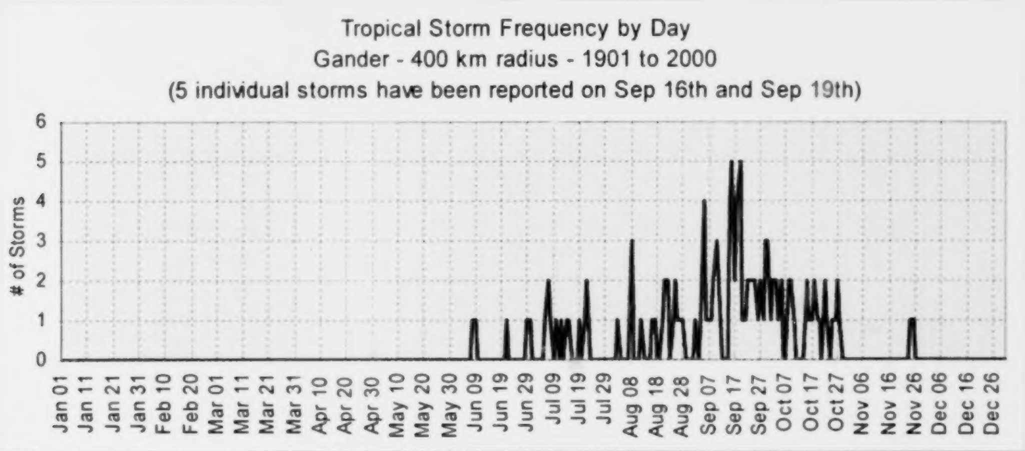




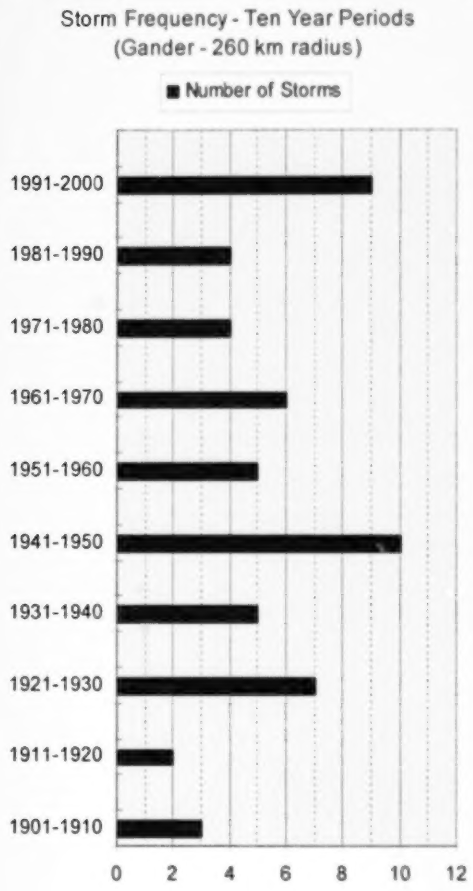
Note: Storms that span months were counted in both months

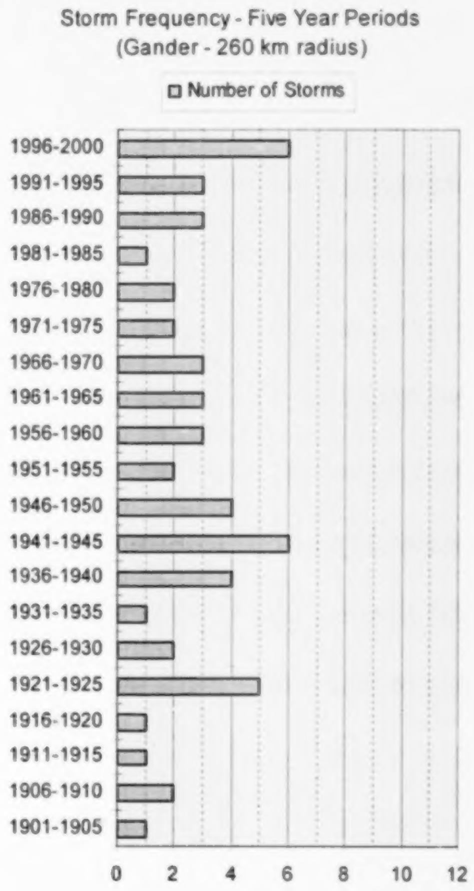

Tropical Storm Frequency by Month
(Gander - 400 km radius - 1901 to 2000)

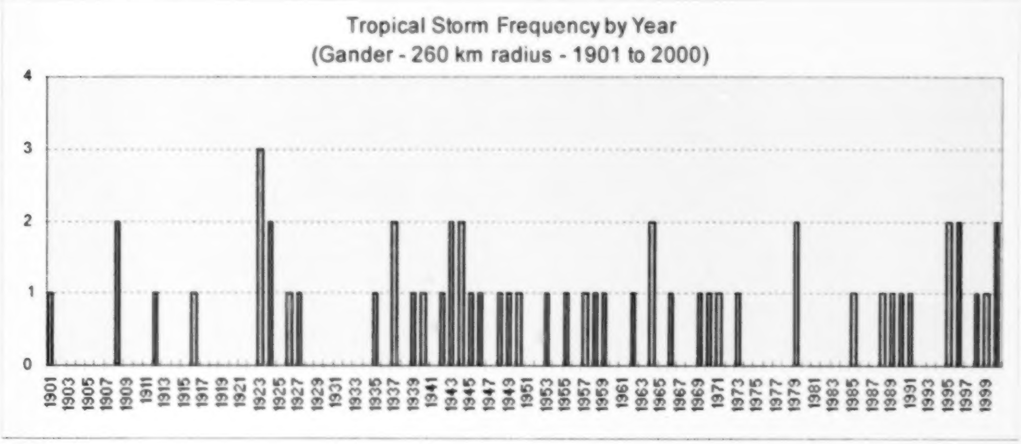
Note: Storms will generally span more than one day. The storm is counted in each day


Tropical Storm Frequency by Day
Gander - 400 km radius - 1901 to 2000
(5 individual storms have been reported on Sep 16th and Sep 19th)

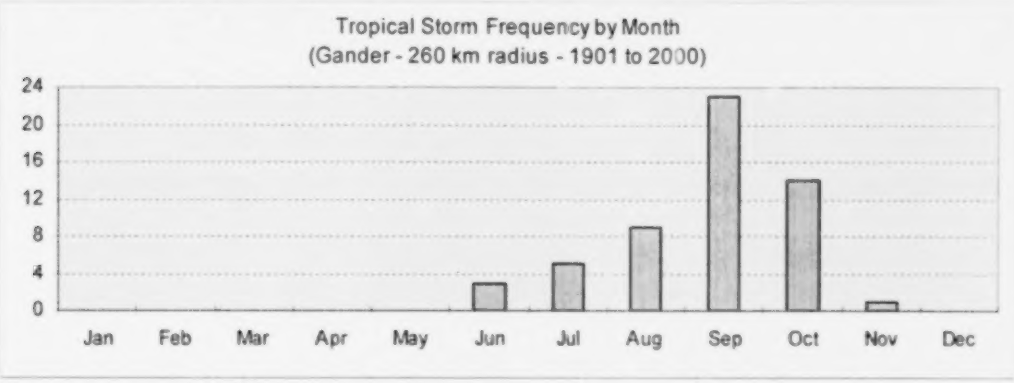
260 km Graphs - Frequency by Time-Periods (1901-2000)



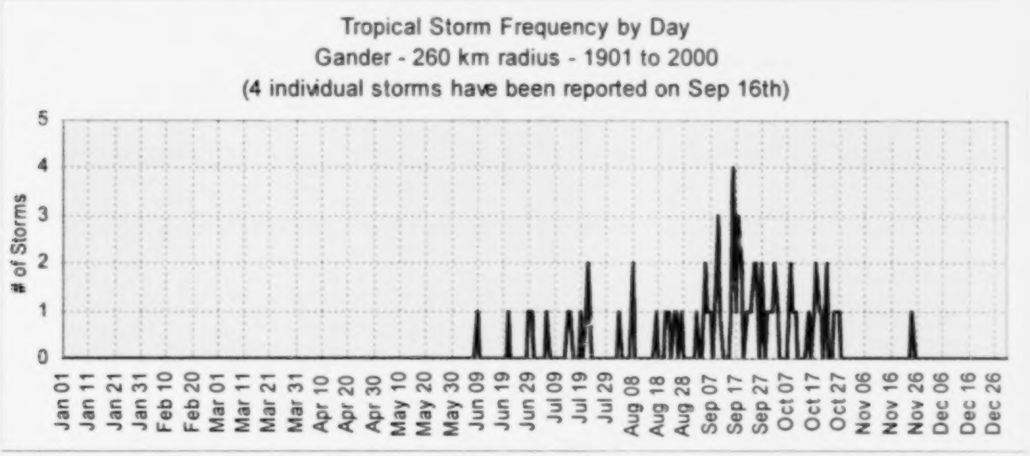




Note: Storms that span months were counted in both months



Note: Storms will generally span more than one day. The storm is counted in each day



Gander – Summary Statistics 260 km Radius (gale swath)

100 Yr	**TD**	**TS**	**G**	**S**	**S1**	**S2**	**S3**	**S4**	**S5**	**H**	**<H**	**ALL**	**Sys-Spd**
#	3	40	18	22	10	2	0	0	0	12	43	55	31.0
Return	33.3	2.5	5.6	4.5	10	50	NA	NA	NA	8.3	2.3	1.8	
50 Yr	**TD**	**TS**	**G**	**S**	**S1**	**S2**	**S3**	**S4**	**S5**	**H**	**<H**	**ALL**	**Sys-Spd**
#	1	21	9	12	5	1	0	0	0	6	22	28	31.9
Return	50	2.4	5.6	4.2	10	50	NA	NA	NA	8.3	2.3	1.8	

Gander – Summary Statistics 400 km Radius (trace precipitation swath)

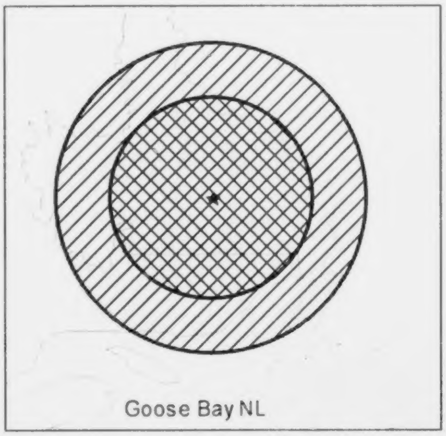
100 Yr	**TD**	**TS**	**G**	**S**	**S1**	**S2**	**S3**	**S4**	**S5**	**H**	**<H**	**ALL**	**Sys-Spd**
#	2	52	24	28	22	4	1	0	0	27	54	81	30.3
Return	50	1.9	4.2	3.6	4.5	25	100	NA	NA	3.7	1.9	1.2	
50 Yr	**TD**	**TS**	**G**	**S**	**S1**	**S2**	**S3**	**S4**	**S5**	**H**	**<H**	**ALL**	**Sys-Spd**
#	0	32	12	20	10	3	1	0	0	14	32	46	31.5
Return	NA	1.6	4.2	2.5	5	16.7	50	NA	NA	3.6	1.6	1.1	

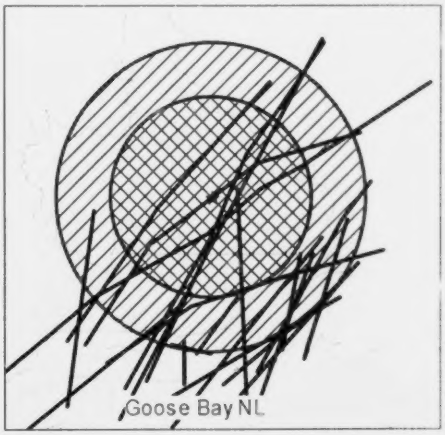
Gander – Storms That Tracked Within 400 km of Site (R) and within 260 km of the Site (R/W)

Name	Date	S#	MaxWind (kts)	SS Scale	AvgSysSpd (kts)	Pres (mb)	Comment	ENSO	R(km) R/W
Not Named	Oct 01, 1901	8	35	TS	31.1		E	Neutral	260 R/W
Not Named	Aug 03, 1908	2	60	TS	24.3		E	La Nina	260 R/W
Not Named	Sep 18, 1908	4	70	SS1	25.0			La Nina	260 R/W
Not Named	Nov 24, 1912	6	55	TS	45.3		E	Neutral	260 R/W
Not Named	Jul 22, 1916	2	35	TS	52.2		E	La Nina	260 R/W
Not Named	Sep 09, 1923	1	65	SS1	24.7			Neutral	260 R/W
Not Named	Oct 02, 1923	2	70	SS1	19.4		E	Neutral	260 R/W
Not Named	Oct 27, 1923	4	35	TS	19.2		E	Neutral	260 R/W
Not Named	Aug 27, 1924	2	80	SS1	29.7		E	La Nina	260 R/W
Not Named	Sep 05, 1924	3	65	SS1	25.5		E	La Nina	260 R/W
Not Named	Aug 08, 1926	2	65	SS1	25.9		E	Neutral	400 R
Not Named	Sep 22, 1926	4	55	TS	17.3		E	Neutral	260 R/W
Not Named	Aug 25, 1927	1	90	SS2	46.7		E	Neutral	260 R/W
Not Named	Sep 11, 1932	4	65	SS1	19.2		E	Neutral	400 R
Not Named	Sep 18, 1933	13	55	TS	14.3		E	Neutral	400 R
Not Named	Aug 25, 1935	1	70	SS1	10.5		E	Neutral	400 R
Not Named	Oct 02, 1935	4	60	TS	29.7		E	Neutral	260 R/W
Not Named	Sep 26, 1937	7	70	SS1	26.3		E	Neutral	260 R/W
Not Named	Sep 30, 1937	8	35	TS	24.6		E	Neutral	260 R/W
Not Named	Oct 18, 1939	4	80	SS1	35.2			Neutral	260 R/W
Not Named	Sep 17, 1940	5	40	TS	16.8			El Nino	260 R/W
Not Named	Sep 24, 1942	5	35	TS	17.1		E	La Nina	260 R/W
Not Named	Oct 05, 1942	7	35	TS	27.6		E	La Nina	400 R
Not Named	Sep 09, 1943	4	55	TS	35.1			Neutral	260 R/W
Not Named	Sep 16, 1943	5	35	TS	32.8		E	Neutral	260 R/W
Not Named	Oct 04, 1943	8	35	TS	15.6		E	Neutral	400 R
Not Named	Sep 15, 1944	7	35	TS	41.7	982	E	La Nina	260 TD
Not Named	Oct 22, 1944	11	40	TS	35.8		E	La Nina	260 R/W
Not Named	Jun 29, 1945	1	40	TS	24.6		E	Neutral	260 R/W
Not Named	Sep 20, 1945	9	25	TD	40.7		E	Neutral	400 TD
Not Named	Sep 15, 1946	4	55	TS	29.7		E	Neutral	260 R/W
Not Named	Sep 02, 1948	3	50	TS	30.2		E	Neutral	260 R/W
Not Named	Sep 10, 1949	4	75	SS1	39.1			La Nina	260 R/W
Able	Aug 21, 1950	1	30	TD	26.3			Neutral	260 TD
George	Oct 05, 1950	7	65	SS1	43.9		E	Neutral	400 R
Baker	Sep 08, 1952	3	65	SS1	27.5			Neutral	400 R
Barbara	Aug 16, 1953	2	55	TS	41.7		E	Neutral	400 R
Not Named	Oct 08, 1953	10	60	TS	28.7		E	Neutral	260 R/W
Ione	Sep 21, 1955	9	50	TS	20.7		E	La Nina	260 R/W
Frieda	Sep 27, 1957	7	45	TS	25.3		E	El Nino	260 R/W
Helene	Sep 29, 1958	8	65	SS1	35.3	966		Neutral	260 R/W
Not Named	Jun 21, 1959	3	45	TS	26.0		E	Neutral	260 R/W
Cindy	Jul 12, 1959	4	35	TS	28.8		E	Neutral	400 R
Daisy	Oct 09, 1962	4	50	TS	20.2		E	Neutral	400 R
Ella	Oct 22, 1962	5	60	TS	39.6		E	Neutral	260 R/W
Cleo	Sep 04, 1964	5	70	SS1	22.3			La Nina	400 R
Dora	Sep 15, 1964	6	55	TS	28.0		E	La Nina	260 R/W
Gladys	Sep 24, 1964	9	60	TS	46.8	990	E	La Nina	260 R/W
Celia	Jul 21, 1966	3	65	SS1	30.3		E	Neutral	260 R/W
Blanche	Aug 12, 1969	2	65	SS1	42.3	998		El Nino	400 R
Debbie	Aug 24, 1969	4	80	SS1	27.3			El Nino	260 R/W
Not Named	Oct 17, 1970	9	70	SS1	55.2	980		La Nina	260 R/W
Arlene	Jul 07, 1971	1	45	TS	27.5			La Nina	400 R
Beth	Aug 17, 1971	3	60	TS	16.3	998	E	La Nina	260 R/W

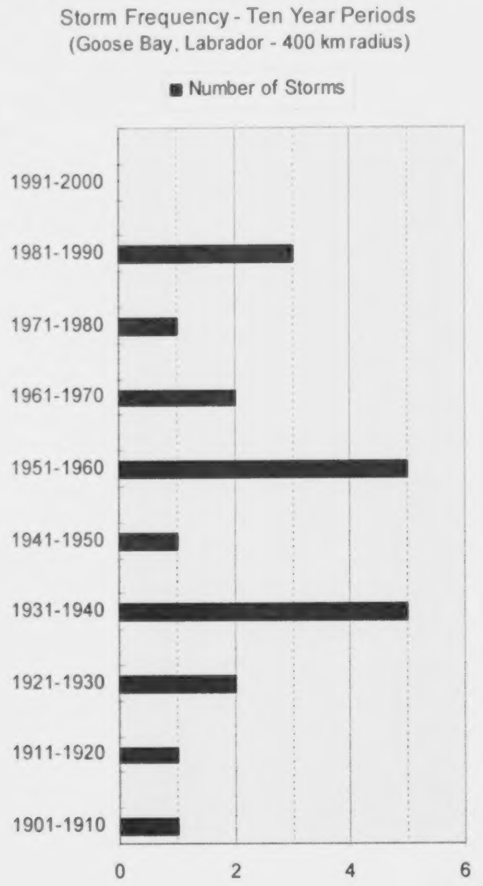
Name	Date	S#	MaxWind (kts)	SS Scale	AvgSysSpd (kts)	Pres (mb)	Comment	ENSO	R(km) R/W
Alice	Jul 06, 1973	1	60	TS	36.9	991		La Nina	260 R/W
Gilda	Oct 27, 1973	8	55	TS	35.2	980	E	La Nina	400 R
Gladys	Oct 03, 1975	7	85	SS2	52.7	960		La Nina	400 R
Dorothy	Sep 29, 1977	4	60	TS	29.4	990	E	Neutral	400 R
Evelyn	Oct 15, 1977	5	70	SS1	19.0	998		Neutral	400 R
Ella	Sep 05, 1978	6	105	SS3	39.5	960		Neutral	400 R
David	Sep 07, 1979	4	55	TS	38.3	986	E	Neutral	260 R/W
Subtrop 1	Oct 25, 1979	9	60	TS	42.8	980	S	Neutral	260 R/W
Debby	Sep 19, 1982	5	90	SS2	27.1	970		El Nino	400 R
Ana	Jul 19, 1985	1	60	TS	27.7	996		Neutral	260 R/W
Gloria	Sep 28, 1985	7	50	TS	23.8	987	E	Neutral	400 R
Alberto	Aug 08, 1988	1	35	TS	30.5	1006		La Nina	260 TD
Dean	Aug 08, 1989	4	65	SS1	34.5	978		Neutral	260 R/W
Lili	Oct 15, 1990	12	40	TS	37.1	995	E	Neutral	260 R/W
Bob	Aug 20, 1991	2	40	TS	25.1	1003	E	El Nino	260 R/W
Allison	Jun 08, 1995	1	45	TS	26.1	993	E	Neutral	260 R/W
Barry	Jul 10, 1995	2	45	TS	22.8	990		Neutral	400 R
Felix	Aug 22, 1995	6	50	TS	40.5	986		Neutral	400 R
Luis	Sep 11, 1995	12	80	SS1	48.9	965		Neutral	260 R/W
Bertha	Jul 14, 1996	2	50	TS	35.9	995	E	Neutral	260 R/W
Hortense	Sep 15, 1996	8	60	TS	21.8	982		Neutral	400 R
Josephine	Oct 10, 1996	10	45	TS	32.6	985	E	Neutral	260 R/W
Earl	Sep 06, 1998	5	55	TS	15.3	964	E	La Nina	260 R/W
Floyd	Sep 18, 1999	6	35	TS	26.2	992	E	La Nina	260 R/W
Gert	Sep 23, 1999	7	60	TS	27.1	968		La Nina	400 R
Leslie	Oct 08, 2000	12	40	TS	35.2	1003	E	La Nina	260 R/W
Michael	Oct 19, 2000	13	85	SS2	25.7	965		La Nina	260 R/W

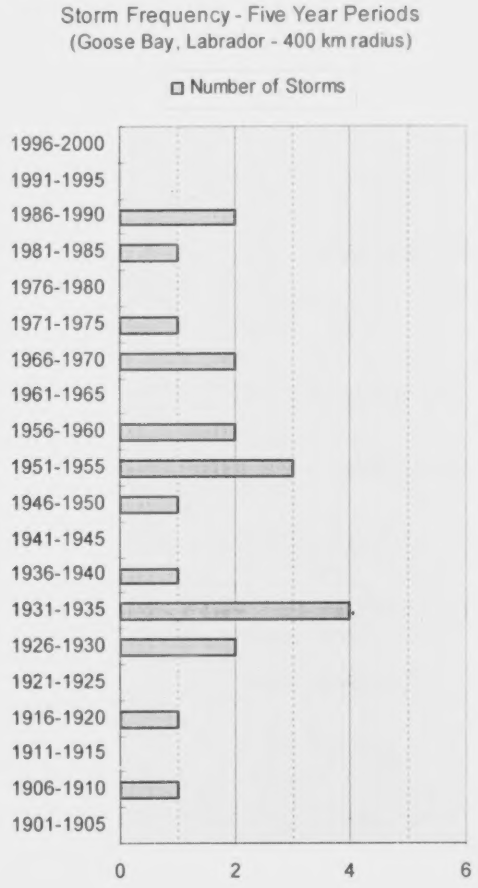
Goose Bay (Labrador)

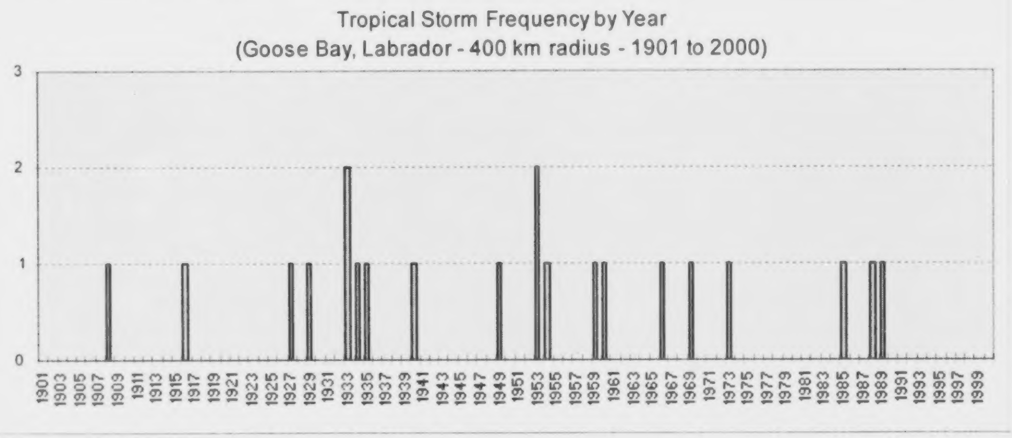




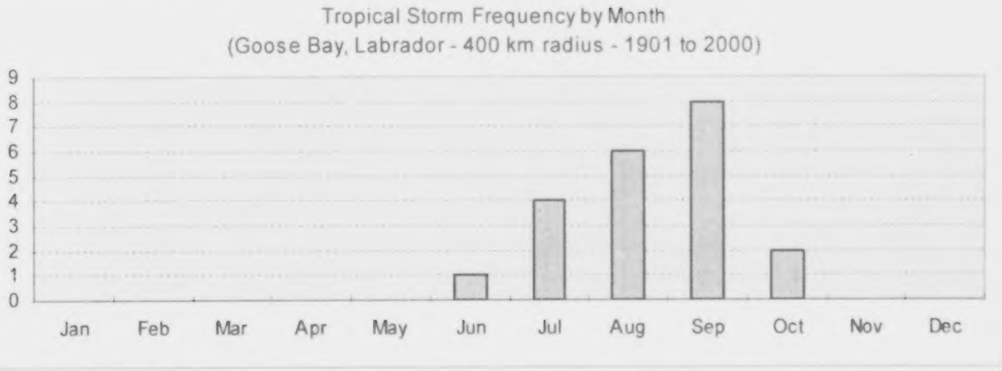
400 km Graphs - Frequency by Time-Periods (1901-2000)





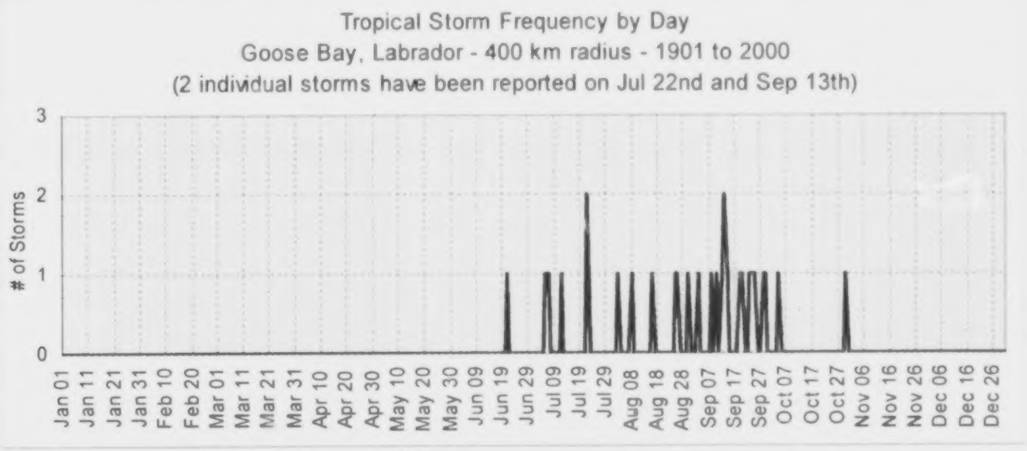


Note: Storms that span months were counted in both months



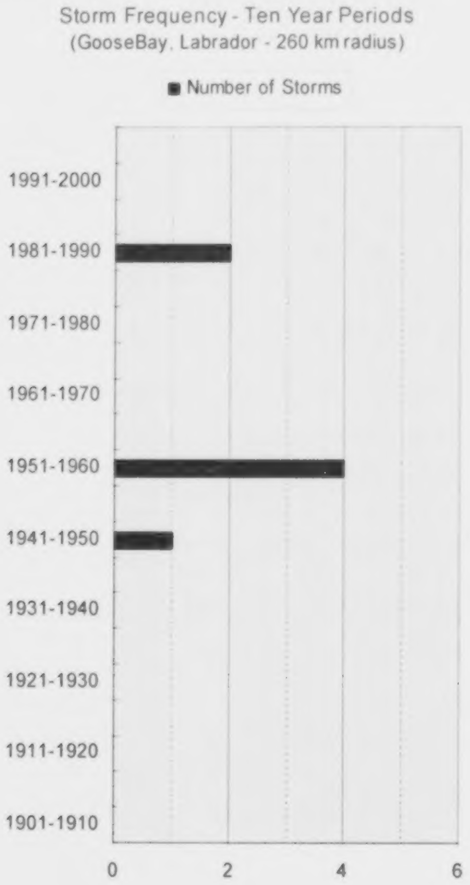
Tropical Storm Frequency by Month
(Goose Bay, Labrador - 400 km radius - 1901 to 2000)

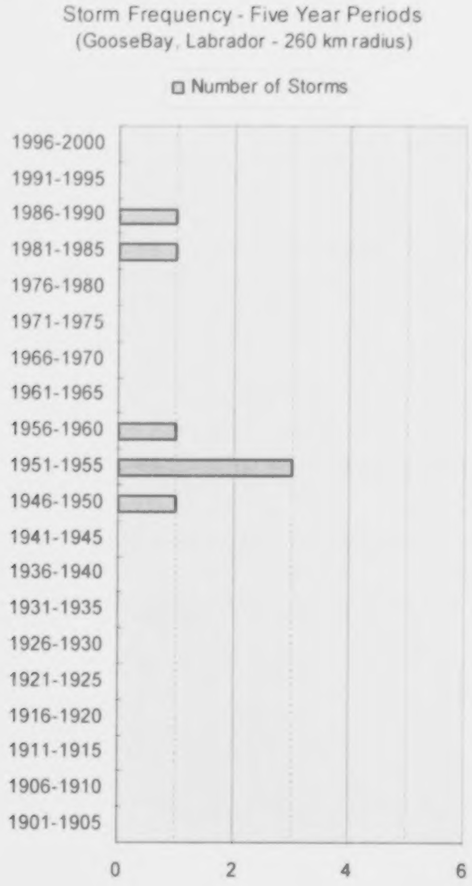
Note: Storms will generally span more than one day. The storm is counted in each day

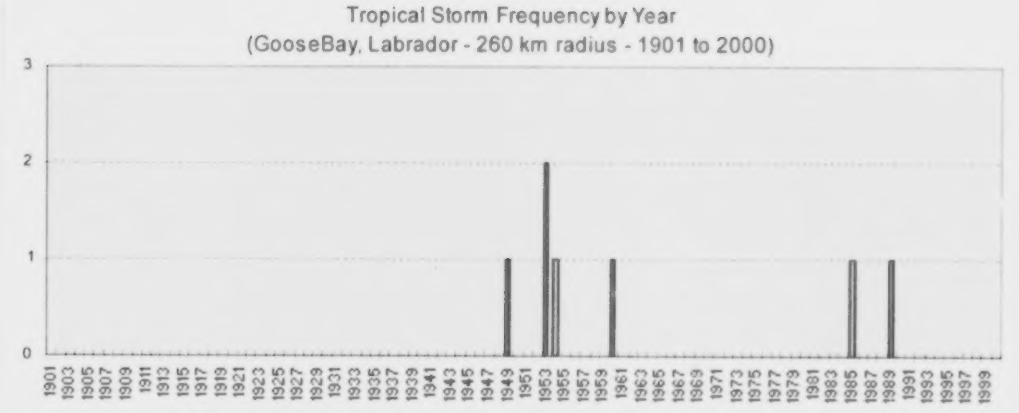


Tropical Storm Frequency by Day
Goose Bay, Labrador - 400 km radius - 1901 to 2000
(2 individual storms have been reported on Jul 22nd and Sep 13th)

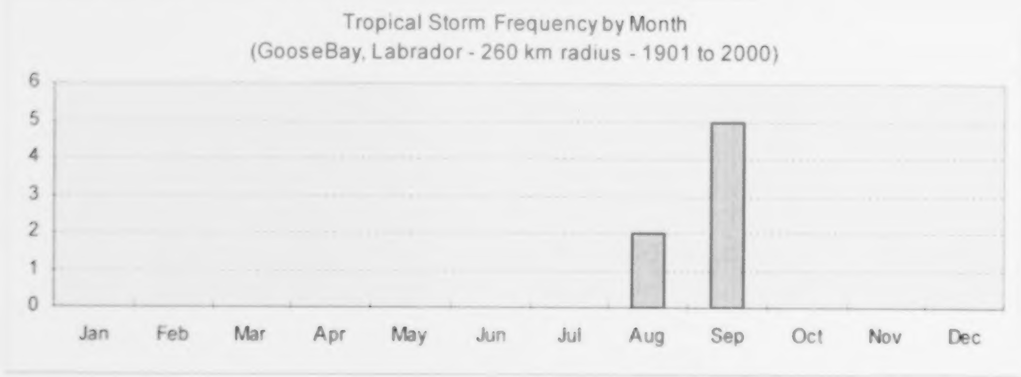
260 km Graphs - Frequency by Time-Periods (1901-2000)



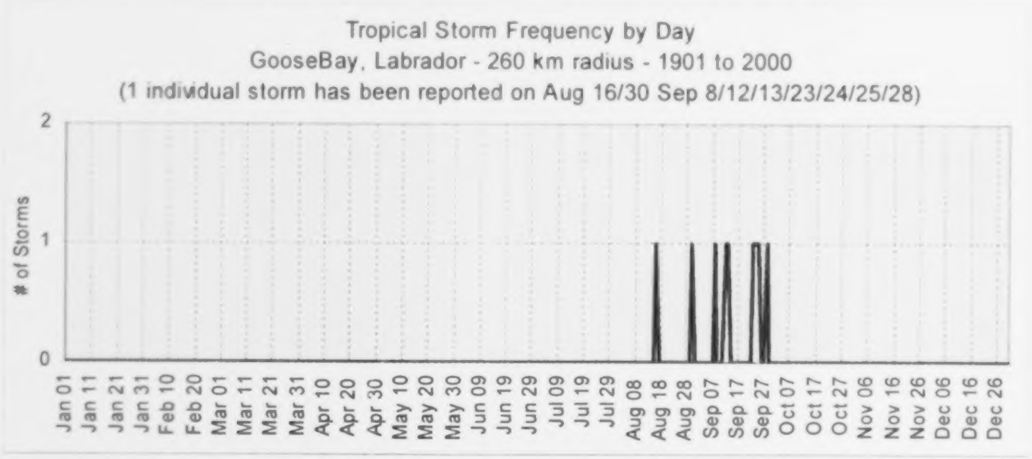




Note: Storms that span months were counted in both months



Note: Storms will generally span more than one day. The storm is counted in each day



Goose Bay – Summary Statistics 260 km Radius (gale swath)

100 Yr	**TD**	**TS**	**G**	**S**	**S1**	**S2**	**S3**	**S4**	**S5**	**H**	**<H**	**ALL**	**Sys-Spd**
#	1	6	1	5	0	0	0	0	0	0	7	7	29.8
Return	100	16.7	100	20	NA	NA	NA	NA	NA	NA	14.3	14.3	
50 Yr	**TD**	**TS**	**G**	**S**	**S1**	**S2**	**S3**	**S4**	**S5**	**H**	**<H**	**ALL**	**Sys-Spd**
#	0	6	1	5	0	0	0	0	0	0	6	6	30.2
Return	NA	8.3	50	10	NA	NA	NA	NA	NA	NA	8.3	8.3	

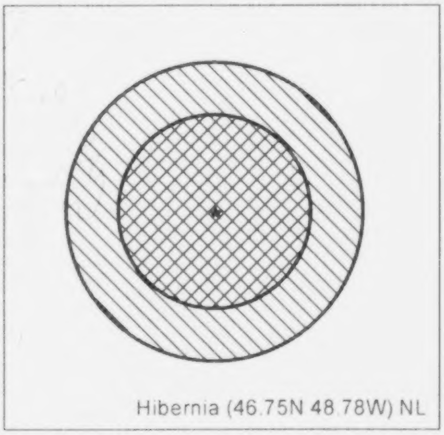
Goose Bay – Summary Statistics 400 km Radius (trace precipitation swath)

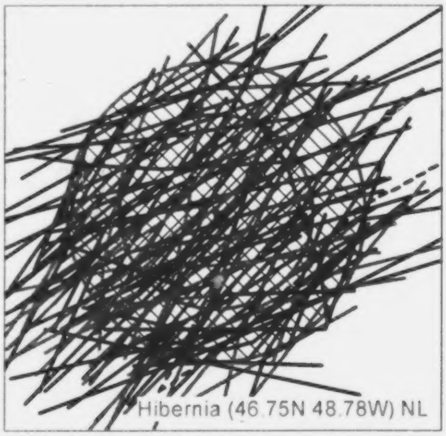
100 Yr	TD	TS	G	S	S1	S2	S3	S4	S5	H	<H	ALL	Sys-Spd
#	4	15	7	8	1	1	0	0	0	2	19	21	31.1
Return	25	6.7	14.3	12.5	100	100	NA	NA	NA	50	5.3	4.8	
50 Yr	**TD**	**TS**	**G**	**S**	**S1**	**S2**	**S3**	**S4**	**S5**	**H**	**<H**	**ALL**	**Sys-Spd**
#	2	8	2	6	1	0	0	0	0	1	10	11	31.9
Return	25	6.3	25	8.3	50	NA	NA	NA	NA	50	5	4.5	

Goose Bay – Storms That Tracked Within 400 km of Site (R) and within 260 km of the Site (R/W)

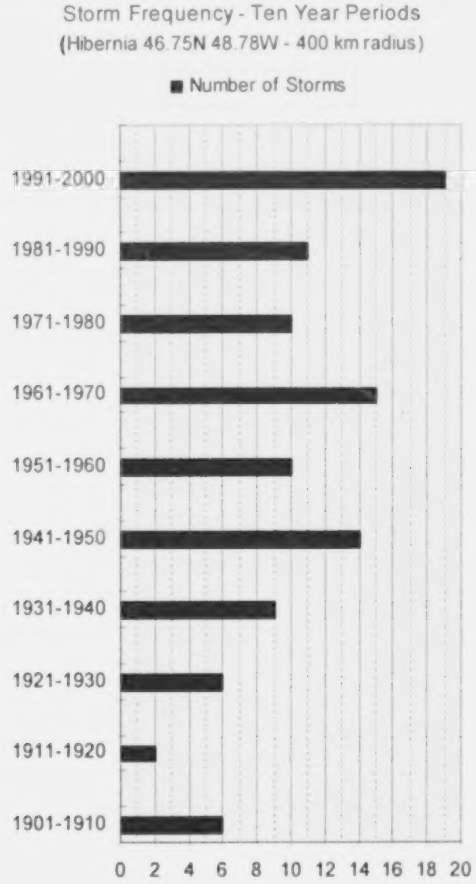
Name	Date	S#	MaxWind (kts)	SS Scale	AvgSysSpd (kts)	Pres (mb)	Comment	ENSO	R(km) R/W
Not Named	Aug 03, 1908	2	50	TS	33.7		E	La Nina	400 R
Not Named	Jul 22, 1916	2	35	TS	52.2		E	La Nina	400 R
Not Named	Aug 25, 1927	1	90	SS2	45.6		E	Neutral	400 R
Not Named	Oct 04, 1929	2	25	TD	62.0		E	El Nino	400 TD
Not Named	Sep 19, 1933	13	55	TS	13.0		E	Neutral	400 R
Not Named	Oct 30, 1933	20	35	TS	10.0		E	Neutral	400 R
Not Named	Jun 21, 1934	2	35	TS	16.5		E	Neutral	400 R
Not Named	Aug 26, 1935	1	35	TS	9.9		E	Neutral	400 R
Not Named	Sep 03, 1940	4	35	TS	32.4			El Nino	400 R
Not Named	Aug 30, 1949	2	30	TD	27.8		E	La Nina	260 TD
Barbara	Aug 16, 1953	2	50	TS	48.1		E	Neutral	260 R/W
Carol	Sep 08, 1953	4	55	TS	29.6		E	Neutral	260 R/W
Edna	Sep 12, 1954	5	60	TS	23.2		E	La Nina	260 R/W
Cindy	Jul 12, 1959	4	35	TS	28.8		E	Neutral	400 R
Donna	Sep 13, 1960	5	55	TS	38.1		E	Neutral	260 R/W
Celia	Jul 22, 1966	3	25	TD	22.5		E	Neutral	400 TD
Gerda	Sep 10, 1969	7	70	SS1	45.5		E	El Nino	400 R
Alice	Jul 06, 1973	1	50	TS	39.8			La Nina	400 R
Gloria	Sep 28, 1985	7	50	TS	24.3	987	E	Neutral	260 R/W
Alberto	Aug 08, 1988	1	30	TD	32.6	1008	E	La Nina	400 TD
Hugo	Sep 23, 1989	8	40	TS	17.9	992	E	Neutral	260 R/W

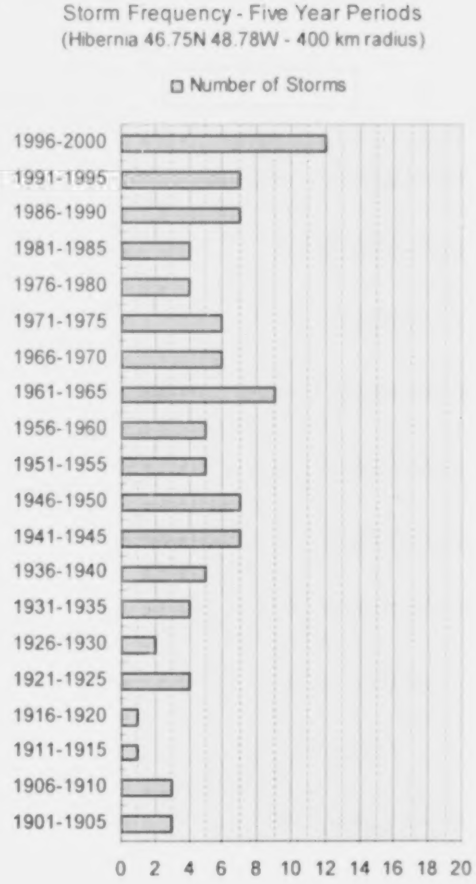
Hibernia (46.75N 48.78W)

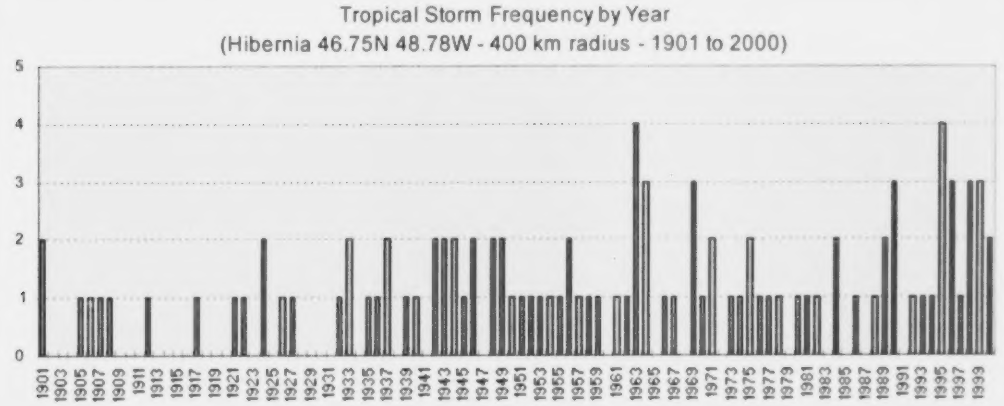




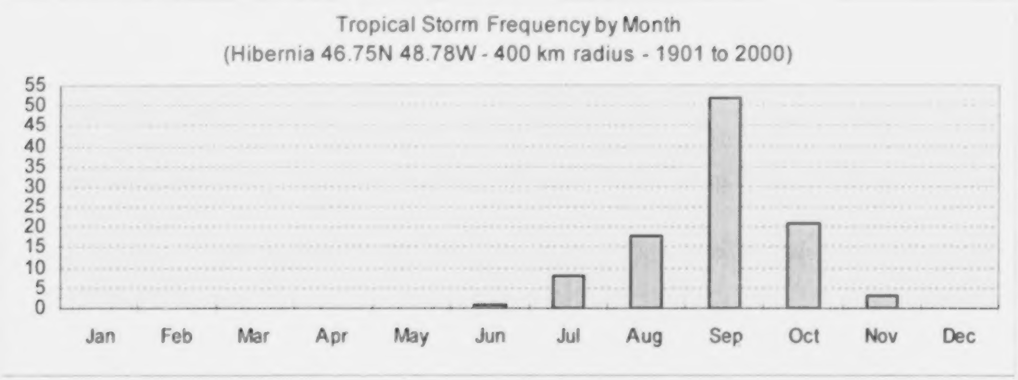
400 km Graphs - Frequency by Time-Periods (1901-2000)



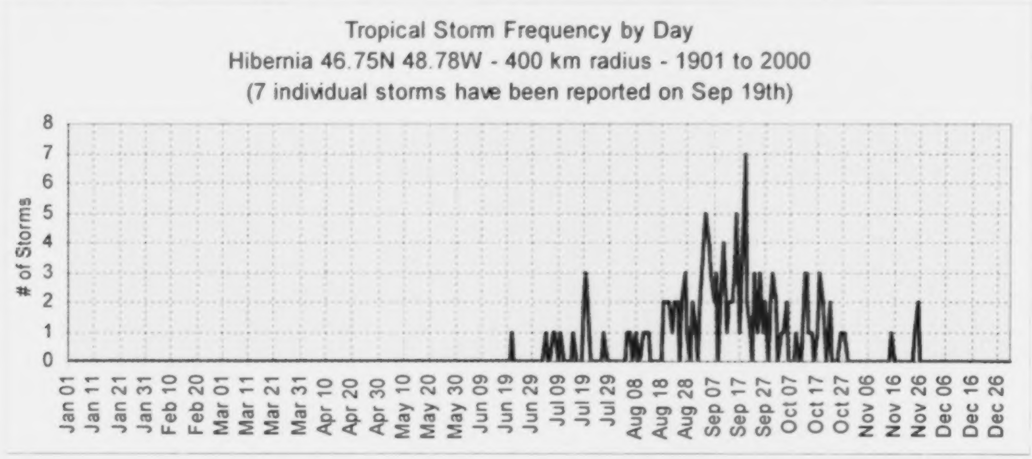




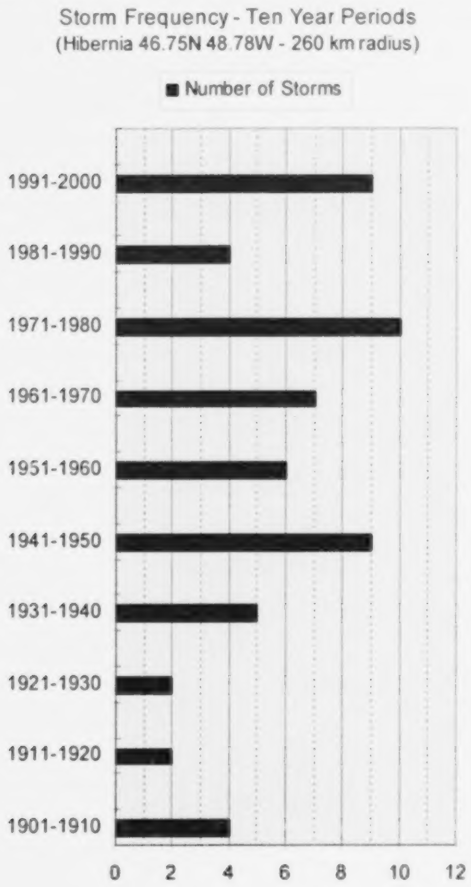
Note: Storms that span months were counted in both months

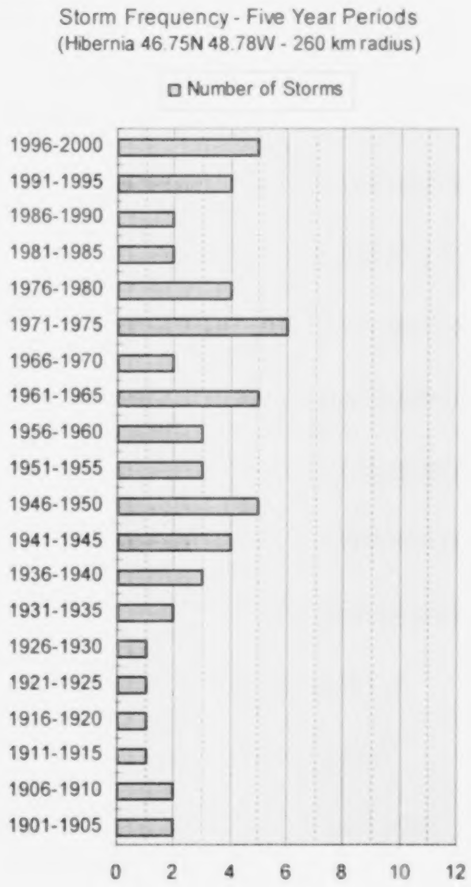

Tropical Storm Frequency by Month
(Hibernia 46.75N 48.78W - 400 km radius - 1901 to 2000)

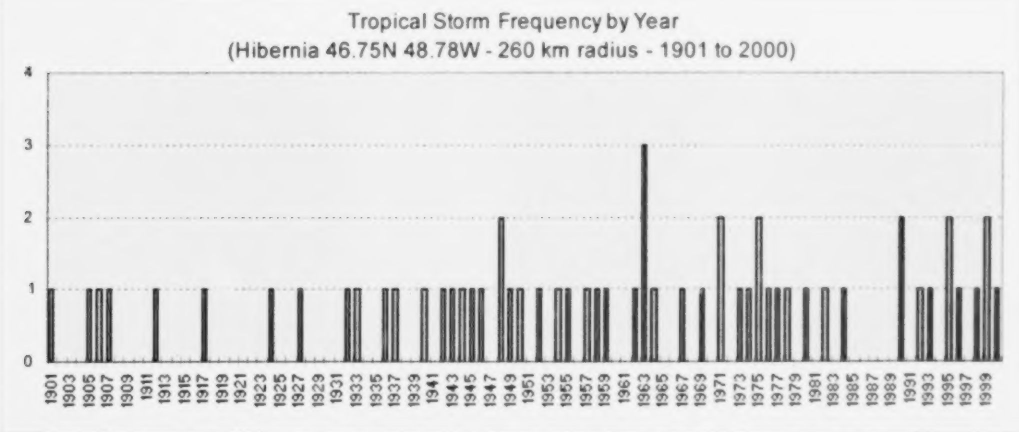
Note: Storms will generally span more than one day. The storm is counted in each day


Tropical Storm Frequency by Day
Hibernia 46.75N 48.78W - 400 km radius - 1901 to 2000
(7 individual storms have been reported on Sep 19th)

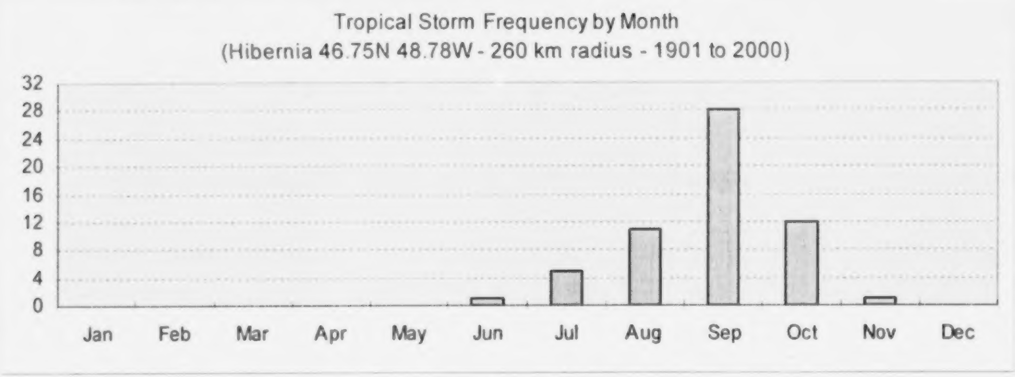
260 km Graphs - Frequency by Time-Periods (1901-2000)



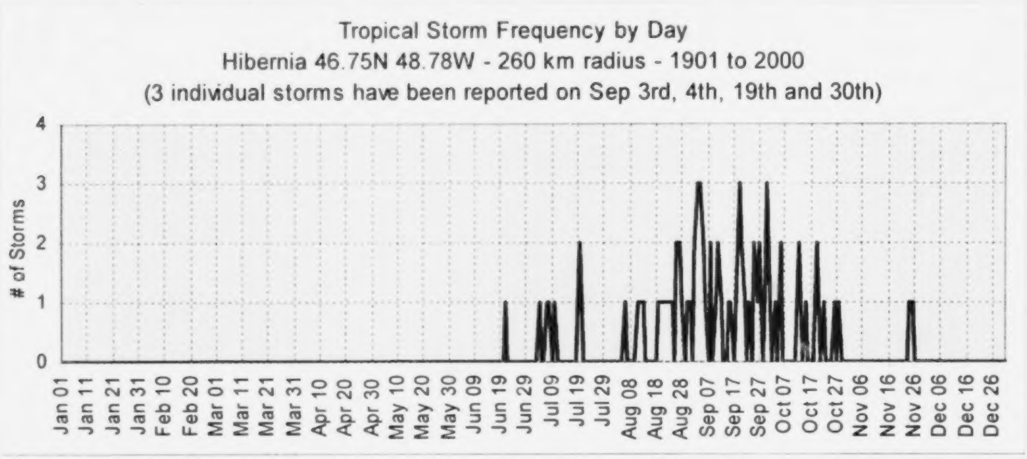




Note: Storms that span months were counted in both months



Note: Storms will generally span more than one day. The storm is counted in each day



Hibernia – Summary Statistics 260 km Radius (gale swath)

100 Yr	**TD**	**TS**	**G**	**S**	**S1**	**S2**	**S3**	**S4**	**S5**	**H**	**<H**	**ALL**	**Sys-Spd**
#	1	34	16	18	20	2	1	0	0	23	35	58	31.0
Return	100	2.9	6.3	5.6	5	50	100	NA	NA	4.3	2.9	1.7	
50 Yr	**TD**	**TS**	**G**	**S**	**S1**	**S2**	**S3**	**S4**	**S5**	**H**	**<H**	**ALL**	**Sys-Spd**
#	0	21	7	14	12	2	1	0	0	15	21	36	31.7
Return	NA	2.4	7.1	3.6	4.2	25	50	NA	NA	3.3	2.4	1.4	

Hibernia – Summary Statistics 400 km Radius (trace precipitation swath)

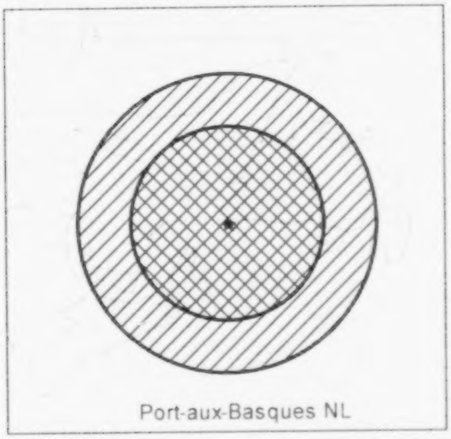
100 Yr	**TD**	**TS**	**G**	**S**	**S1**	**S2**	**S3**	**S4**	**S5**	**H**	**<H**	**ALL**	**Sys-Spd**
#	4	58	27	31	32	6	2	0	0	40	62	102	31.4
Return	25	1.7	3.7	3.2	3.1	16.7	50	NA	NA	2.5	1.6	1	
50 Yr	**TD**	**TS**	**G**	**S**	**S1**	**S2**	**S3**	**S4**	**S5**	**H**	**<H**	**ALL**	**Sys-Spd**
#	3	37	15	22	19	4	2	0	0	25	40	65	32.2
Return	16.7	1.4	3.3	2.3	2.6	12.5	25	NA	NA	2	1.3	0.8	

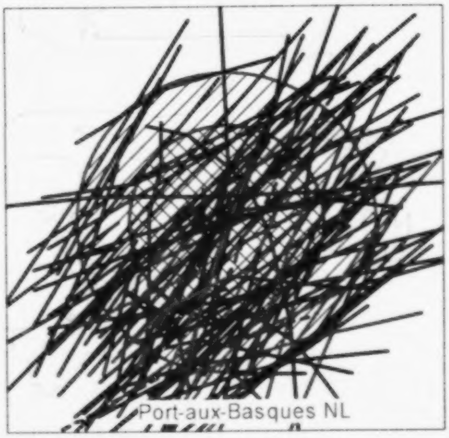
Hibernia – Storms That Tracked Within 400 km of Site (R) and within 260 km of the Site (R/W)

Name	Date	S#	MaxWind (kts)	SS Scale	AvgSysSpd (kts)	Pres (mb)	Comment	ENSO	R(km) R/W
Not Named	Oct 01, 1901	8	40	TS	37.4		E	Neutral	260 R/W
Not Named	Oct 13, 1901	9	35	TS	29.1		E	Neutral	400 R
Not Named	Oct 12, 1905	4	50	TS	15.1		E	El Nino	260 R/W
Not Named	Sep 11, 1906	3	75	SS1	42.3			La Nina	260 R/W
Not Named	Oct 19, 1907	4	40	TS	32.7			Neutral	260 R/W
Not Named	Sep 18, 1908	4	60	TS	24.4		E	La Nina	400 R
Not Named	Nov 24, 1912	6	55	TS	47.4		E	Neutral	260 R/W
Not Named	Sep 06, 1917	2	80	SS1	37.4		E	Neutral	260 R/W
Not Named	Sep 16, 1921	3	90	SS2	52.1			Neutral	400 R
Not Named	Sep 23, 1922	2	95	SS2	21.4		E	La Nina	400 R
Not Named	Sep 19, 1924	4	40	TS	43.7		E	La Nina	260 R/W
Not Named	Nov 15, 1924	8	40	TS	31.9		E	La Nina	400 R
Not Named	Sep 23, 1926	4	55	TS	15.9		E	Neutral	400 R
Not Named	Sep 29, 1927	4	75	SS1	14.8		E	Neutral	260 R/W
Not Named	Sep 11, 1932	4	60	TS	24.5		E	Neutral	260 R/W
Not Named	Aug 30, 1933	9	35	TS	21.3			Neutral	260 R/W
Not Named	Oct 09, 1933	18	65	SS1	40.9		E	Neutral	400 R
Not Named	Sep 07, 1935	2	80	SS1	40.0		E	Neutral	400 R
Not Named	Sep 20, 1936	13	70	SS1	23.7			Neutral	260 R/W
Not Named	Sep 19, 1937	5	75	SS1	18.6			Neutral	400 R
Not Named	Sep 30, 1937	8	35	TS	22.2		E	Neutral	260 R/W
Not Named	Oct 18, 1939	4	80	SS1	35.2			Neutral	400 R
Not Named	Sep 18, 1940	5	35	TS	22.4		E	El Nino	260 R/W
Not Named	Sep 24, 1942	5	35	TS	20.9		E	La Nina	400 R
Not Named	Oct 05, 1942	7	35	TS	27.3		E	La Nina	260 R/W
Not Named	Aug 26, 1943	3	60	TS	27.0		E	Neutral	260 R/W
Not Named	Oct 04, 1943	8	35	TS	15.6		E	Neutral	400 R
Not Named	Jul 19, 1944	1	50	TS	37.2		E	La Nina	400 R
Not Named	Sep 26, 1944	9	75	SS1	25.2			La Nina	260 R/W
Not Named	Sep 20, 1945	9	25	TD	31.0		E	Neutral	260 TD
Not Named	Jul 10, 1946	2	40	TS	17.5		E	Neutral	260 R/W
Not Named	Sep 16, 1946	4	50	TS	24.3		E	Neutral	400 R
Not Named	Sep 15, 1948	6	70	SS1	40.8			Neutral	260 R/W
Not Named	Sep 25, 1948	7	50	TS	38.6		E	Neutral	260 R/W
Not Named	Aug 26, 1949	1	65	SS1	24.8		E	La Nina	260 R/W
Not Named	Sep 10, 1949	4	65	SS1	36.9		E	La Nina	400 R
George	Oct 05, 1950	7	65	SS1	44.8		E	Neutral	260 R/W
Fox	Sep 10, 1951	6	75	SS1	54.2			El Nino	400 R
Baker	Sep 08, 1952	3	70	SS1	31.0			Neutral	260 R/W
Hazel	Oct 12, 1953	12	35	TS	25.6		E	Neutral	400 R
Dolly	Sep 03, 1954	4	65	SS1	33.2		E	La Nina	260 R/W
Diane	Aug 21, 1955	3	35	TS	27.8		E	La Nina	260 R/W
Betsy	Aug 19, 1956	3	45	TS	24.2		E	La Nina	400 R
Carla	Sep 11, 1956	4	25	TD	31.1			La Nina	400 TD
Frieda	Sep 27, 1957	7	45	TS	25.3		E	El Nino	260 R/W
Cleo	Aug 19, 1958	3	80	SS1	29.6	979		Neutral	260 R/W
Not Named	Jun 21, 1959	3	45	TS	27.0		E	Neutral	260 R/W
Gerda	Oct 22, 1961	8	30	TD	27.7		E	Neutral	400 TD
Ella	Oct 22, 1962	5	60	TS	39.6		E	Neutral	260 R/W
Arlene	Aug 11, 1963	1	65	SS1	26.8		E	El Nino	260 R/W
Beulah	Aug 27, 1963	2	70	SS1	44.5			El Nino	260 R/W
Not Named	Sep 13, 1963	3	50	TS	36.2			El Nino	400 R
Flora	Oct 12, 1963	7	75	SS1	24.3			El Nino	260 R/W
Cleo	Sep 04, 1964	5	75	SS1	27.1			La Nina	260 R/W

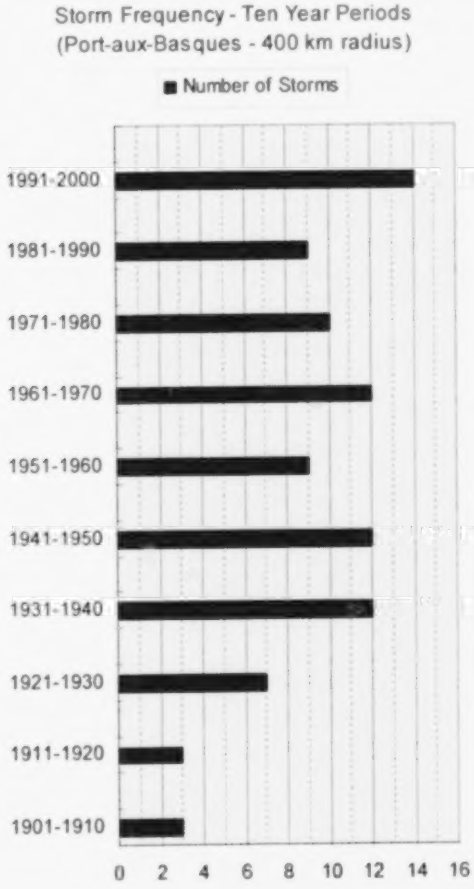
Name	Date	S#	MaxWind (kts)	SS Scale	AvgSysSpd (kts)	Pres (mb)	Comment	ENSO	R(km) R/W
Dora	Sep 15, 1964	6	55	TS	27.8		E	La Nina	400 R
Ethel	Sep 14, 1964	7	75	SS1	24.6	969		La Nina	400 R
Faith	Sep 04, 1966	6	90	SS2	36.5			Neutral	400 R
Arlene	Sep 03, 1967	1	75	SS1	14.5			La Nina	260 R/W
Blanche	Aug 12, 1969	2	60	TS	41.8		E	El Nino	260 R/W
Debbie	Aug 24, 1969	4	90	SS2	24.2			El Nino	400 R
Kara	Oct 18, 1969	14	90	SS2	40.9			El Nino	400 R
Not Named	Oct 17, 1970	9	70	SS1	55.2	980		La Nina	400 R
Arlene	Jul 07, 1971	1	45	TS	27.5			La Nina	260 R/W
Not Named	Aug 06, 1971	2	75	SS1	40.7	974		La Nina	260 R/W
Gilda	Oct 28, 1973	8	55	TS	38.0		E	La Nina	260 R/W
Subtrop 2	Jul 19, 1974	2	45	TS	17.2		S	Neutral	260 R/W
Amy	Jul 04, 1975	1	50	TS	33.1	986		La Nina	260 R/W
Gladys	Oct 03, 1975	7	85	SS2	52.7	960		La Nina	260 R/W
Candice	Aug 23, 1976	4	80	SS1	25.1			El Nino	260 R/W
Dorothy	Sep 29, 1977	4	60	TS	29.4	990	E	Neutral	260 R/W
Ella	Sep 05, 1978	6	105	SS3	39.5	960		Neutral	260 R/W
Georges	Sep 08, 1980	7	70	SS1	38.5	993		Neutral	260 R/W
Cindy	Aug 05, 1981	3	40	TS	18.5	1006		Neutral	400 R
Debby	Sep 18, 1982	5	100	SS3	27.0	960		El Nino	260 R/W
Subtrop 1	Aug 20, 1984	1	50	TS	22.0	1001	S	Neutral	400 R
Cesar	Sep 02, 1984	4	50	TS	11.3	994		Neutral	260 R/W
Earl	Sep 19, 1986	5	60	TS	31.4	992	E	El Nino	400 R
Keith	Nov 25, 1988	12	55	TS	42.4	960	E	La Nina	400 R
Dean	Aug 08, 1989	4	45	TS	38.5	995		Neutral	400 R
Gabrielle	Sep 13, 1989	7	30	TD	18.3	1010		Neutral	400 TD
Gustav	Sep 02, 1990	7	65	SS1	23.5	985		Neutral	260 R/W
Isidore	Sep 16, 1990	9	60	TS	19.1	990		Neutral	400 R
Lili	Oct 15, 1990	12	40	TS	37.9	994	E	Neutral	260 R/W
Frances	Oct 26, 1992	7	60	TS	17.4	986		Neutral	260 R/W
Floyd	Sep 10, 1993	6	65	SS1	42.4	990		Neutral	260 R/W
Chris	Aug 23, 1994	3	45	TS	35.7	1003		Neutral	400 R
Chantal	Jul 20, 1995	3	50	TS	32.2	1000		Neutral	260 R/W
Felix	Aug 22, 1995	6	50	TS	40.2	986		Neutral	260 R/W
Iris	Sep 04, 1995	9	60	TS	32.9	990		Neutral	400 R
Luis	Sep 11, 1995	12	80	SS1	57.6	963		Neutral	400 R
Bertha	Jul 15, 1996	2	50	TS	36.3	995	E	Neutral	400 R
Edouard	Sep 05, 1996	5	50	TS	14.1	995	E	Neutral	400 R
Hortense	Sep 16, 1996	8	40	TS	29.8	998	E	Neutral	260 R/W
Danny	Jul 27, 1997	5	40	TS	59.4	1004	E	El Nino	400 R
Bonnie	Aug 30, 1998	2	45	TS	30.8	1000		La Nina	400 R
Danielle	Sep 03, 1998	4	70	SS1	26.8	965		La Nina	260 R/W
Earl	Sep 06, 1998	5	55	TS	16.0	964	E	La Nina	400 R
Floyd	Sep 19, 1999	6	40	TS	28.5	992	E	La Nina	400 R
Gert	Sep 23, 1999	7	60	TS	27.1	968		La Nina	260 R/W
Irene	Oct 19, 1999	9	80	SS1	50.7	968		La Nina	260 R/W
Florence	Sep 17, 2000	6	50	TS	33.3	1000		La Nina	400 R
Helene	Sep 25, 2000	8	55	TS	51.8	988		La Nina	260 R/W

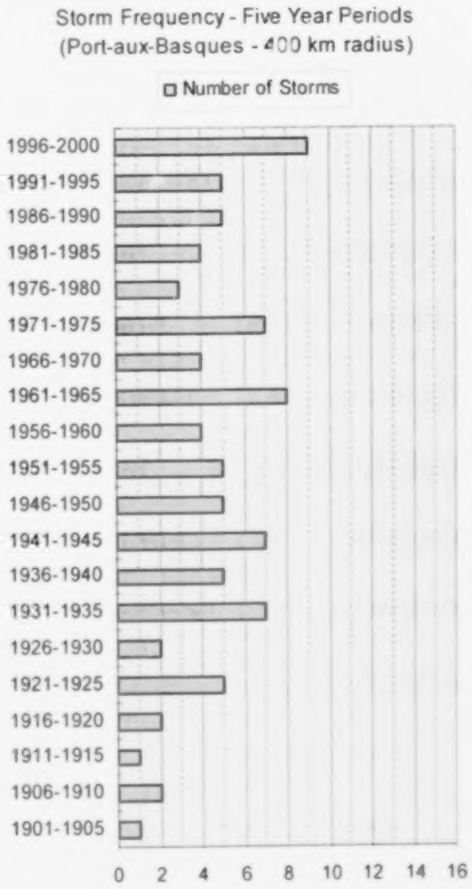
Port-aux-Basques

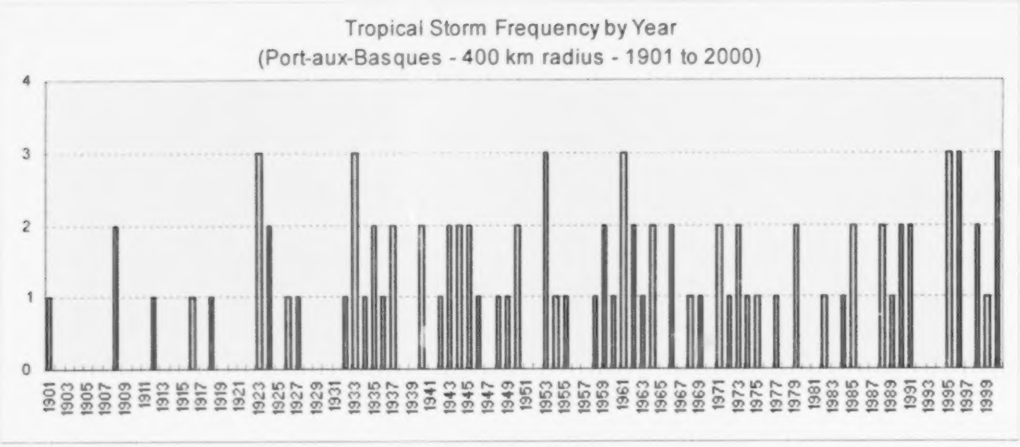

Port-aux-Basques NL


Port-aux-Basques NL

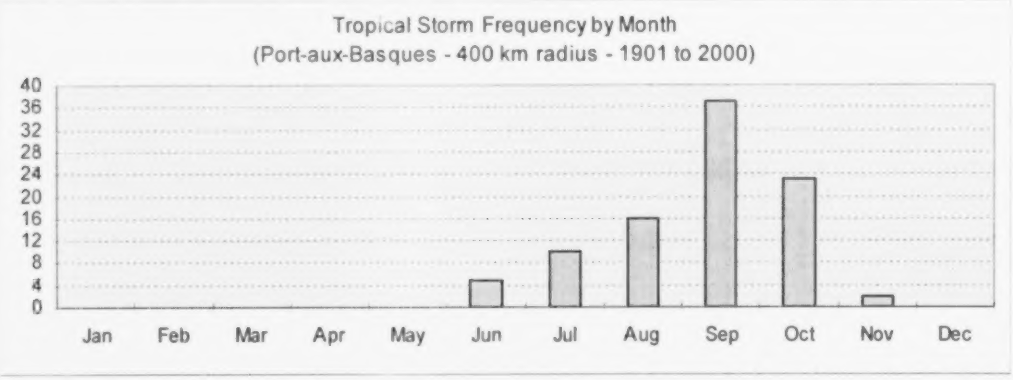
400 km Graphs - Frequency by Time-Periods (1901-2000)



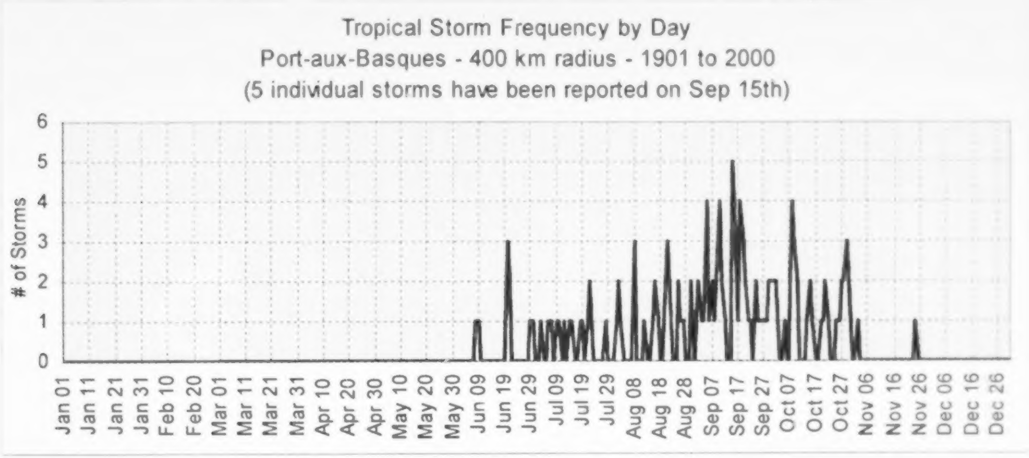




Note: Storms that span months were counted in both months

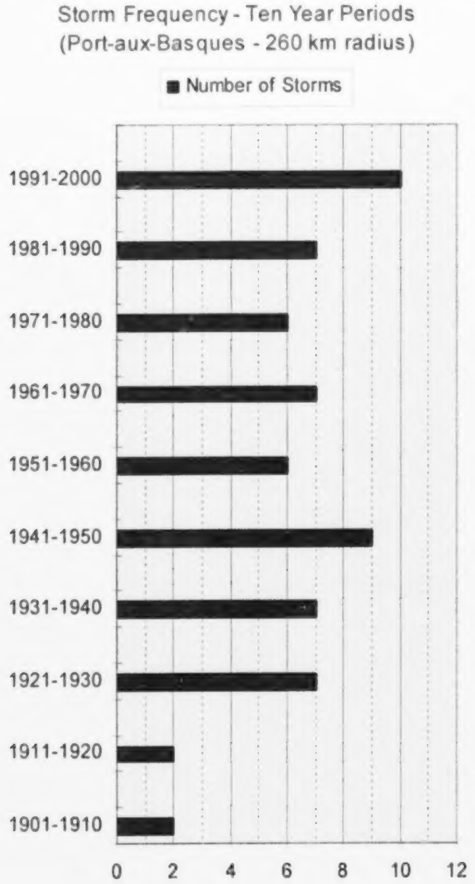


Note: Storms will generally span more than one day. The storm is counted in each day

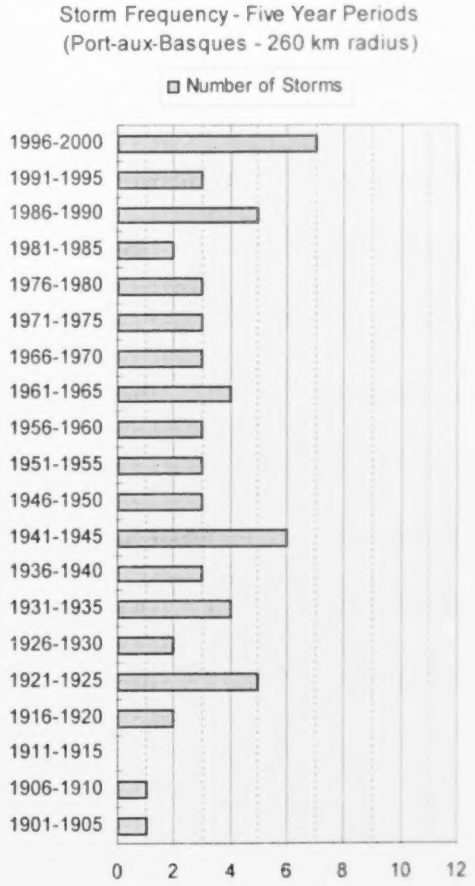


Tropical Storm Frequency by Day
Port-aux-Basques - 400 km radius - 1901 to 2000
(5 individual storms have been reported on Sep 15th)

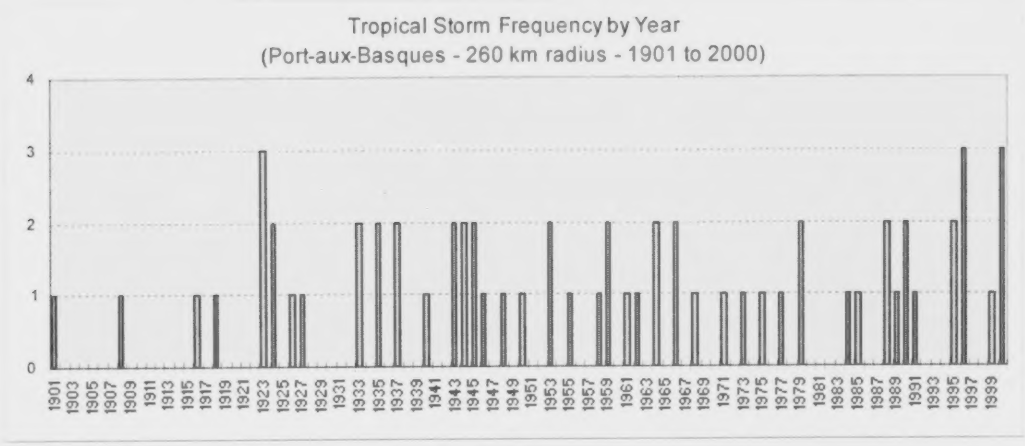
260 km Graphs - Frequency by Time-Periods (1901-2000)



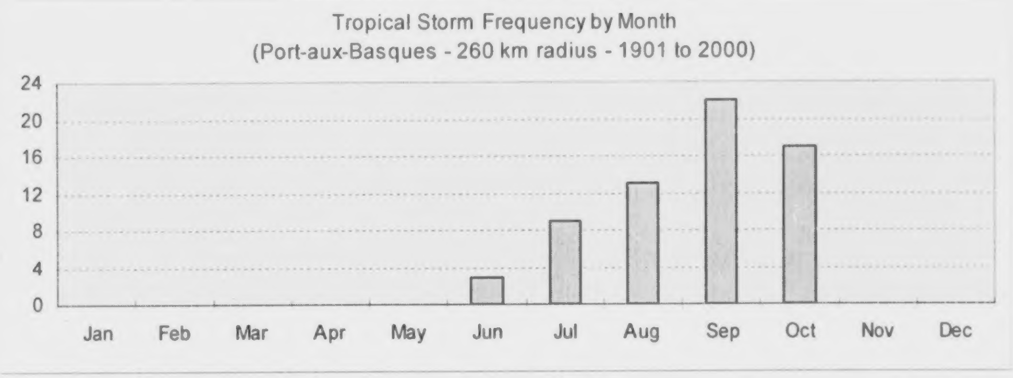
Storm Frequency - Ten Year Periods
(Port-aux-Basques - 260 km radius)



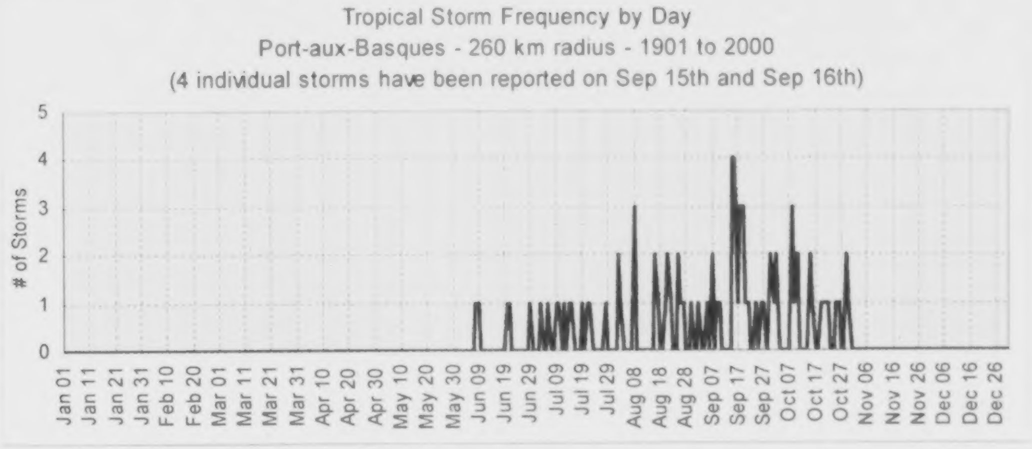
Storm Frequency - Five Year Periods
(Port-aux-Basques - 260 km radius)


Tropical Storm Frequency by Year
(Port-aux-Basques - 260 km radius - 1901 to 2000)

Note: Storms that span months were counted in both months


Tropical Storm Frequency by Month
(Port-aux-Basques - 260 km radius - 1901 to 2000)

Note: Storms will generally span more than one day. The storm is counted in each day



Tropical Storm Frequency by Day
Port-aux-Basques - 260 km radius - 1901 to 2000
(4 individual storms have been reported on Sep 15th and Sep 16th)

Port-aux-Basques – Summary Statistics 260 km Radius (gale swath)

100 Yr	TD	TS	G	S	S1	S2	S3	S4	S5	H	<H	ALL	Sys-Spd
#	4	41	19	22	16	2	0	0	0	18	45	63	29.2
Return	25	2.4	5.3	4.5	6.3	50	NA	NA	NA	5.6	2.2	1.6	
50 Yr	**TD**	**TS**	**G**	**S**	**S1**	**S2**	**S3**	**S4**	**S5**	**H**	**<H**	**ALL**	**Sys-Spd**
#	1	26	10	16	8	1	0	0	0	9	27	36	29.9
Return	50	1.9	5	3.1	6.3	50	NA	NA	NA	5.6	1.9	1.4	

Port-aux-Basques – Summary Statistics 400 km Radius (trace precipitation swath)

100 Yr	TD	TS	G	S	S1	S2	S3	S4	S5	H	<H	ALL	Sys-Spd
#	3	56	27	29	27	5	0	0	0	32	59	91	29.0
Return	33.3	1.8	3.7	3.4	3.7	20	NA	NA	NA	3.1	1.7	1.1	
50 Yr	**TD**	**TS**	**G**	**S**	**S1**	**S2**	**S3**	**S4**	**S5**	**H**	**<H**	**ALL**	**Sys-Spd**
#	2	36	14	22	14	2	0	0	0	16	38	54	30.2
Return	25	1.4	3.6	2.3	3.6	25	NA	NA	NA	3.1	1.3	0.9	

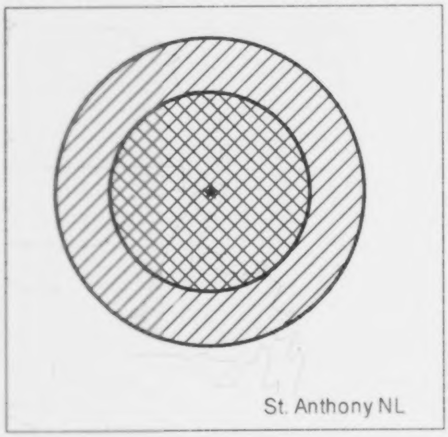
Port-aux-Basques – Storms That Tracked Within 400 km of Site (R) and within 260 km of the Site (R/W)

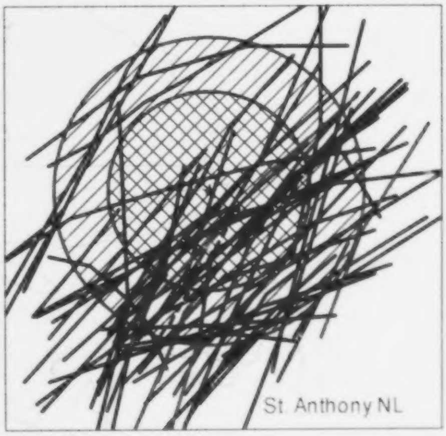
Name	Date	S#	MaxWind (kts)	SS Scale	AvgSysSpd (kts)	Pres (mb)	Comment	ENSO	R(km) R/W
Not Named	Oct 01, 1901	8	35	TS	26.5		E	Neutral	260 R/W
Not Named	Aug 02, 1908	2	75	SS1	24.9		E	La Nina	260 R/W
Not Named	Sep 18, 1908	4	70	SS1	27.0			La Nina	400 R
Not Named	Nov 24, 1912	6	60	TS	40.5		E	Neutral	400 R
Not Named	Jul 22, 1916	2	45	TS	40.6			La Nina	260 R/W
Not Named	Sep 07, 1918	4	45	TS	20.5		E	El Nino	260 R/W
Not Named	Sep 09, 1923	1	65	SS1	24.7			Neutral	260 R/W
Not Named	Oct 01, 1923	2	80	SS1	16.4		E	Neutral	260 R/W
Not Named	Oct 27, 1923	4	35	TS	19.6		E	Neutral	260 TD
Not Named	Aug 27, 1924	2	85	SS2	32.2		E	La Nina	260 R/W
Not Named	Sep 04, 1924	3	70	SS1	26.6		E	La Nina	260 R/W
Not Named	Aug 08, 1926	2	70	SS1	25.8		E	Neutral	260 R/W
Not Named	Aug 25, 1927	1	90	SS2	51.0		E	Neutral	260 R/W
Not Named	Sep 10, 1932	4	70	SS1	11.2		E	Neutral	400 R

Name	Date	S#	MaxWind (kts)	SS Scale	AvgSysSpd (kts)	Pres (mb)	Comment	ENSO	R(km) R/W
Not Named	Sep 18, 1933	13	60	TS	16.8		E	Neutral	260 R/W
Not Named	Oct 08, 1933	18	75	SS1	26.7		E	Neutral	400 R
Not Named	Oct 29, 1933	20	60	TS	12.3		E	Neutral	260 R/W
Not Named	Jun 20, 1934	2	40	TS	18.2		E	Neutral	400 R
Not Named	Aug 25, 1935	1	75	SS1	12.7		E	Neutral	260 R/W
Not Named	Oct 02, 1935	4	65	SS1	36.8		E	Neutral	260 R/W
Not Named	Sep 20, 1936	13	75	SS1	31.9			Neutral	400 R
Not Named	Sep 26, 1937	7	75	SS1	26.3		E	Neutral	260 R/W
Not Named	Sep 29, 1937	8	35	TS	27.1		E	Neutral	260 R/W
Not Named	Sep 03, 1940	4	45	TS	26.6			El Nino	400 R
Not Named	Sep 17, 1940	5	55	TS	15.0			El Nino	260 R/W
Not Named	Sep 24, 1942	5	35	TS	12.6		E	La Nina	400 R
Not Named	Sep 09, 1943	4	60	TS	34.7			Neutral	260 R/W
Not Named	Sep 16, 1943	5	40	TS	25.0		E	Neutral	260 R/W
Not Named	Sep 15, 1944	7	35	TS	40.8		E	La Nina	260 R/W
Not Named	Oct 22, 1944	11	45	TS	32.5		E	La Nina	260 R/W
Not Named	Jun 29, 1945	1	40	TS	21.9		E	Neutral	260 R/W
Not Named	Sep 19, 1945	9	25	TD	38.7		E	Neutral	260 TD
Not Named	Sep 15, 1946	4	60	TS	31.5		E	Neutral	260 R/W
Not Named	Sep 01, 1948	3	55	TS	32.9		E	Neutral	260 R/W
Not Named	Sep 10, 1949	4	75	SS1	35.7			La Nina	400 R
Able	Aug 21, 1950	1	35	TS	25.7			Neutral	260 TD
George	Oct 05, 1950	7	85	SS2	38.6			Neutral	400 R
Barbara	Aug 15, 1953	2	70	SS1	39.5		E	Neutral	260 R/W
Carol	Sep 08, 1953	4	60	TS	30.6		E	Neutral	400 R
Not Named	Oct 08, 1953	10	60	TS	25.0		E	Neutral	260 R/W
Edna	Sep 12, 1954	5	65	SS1	44.8		E	La Nina	400 R
Ione	Sep 21, 1955	9	60	TS	24.0		E	La Nina	260 R/W
Helene	Sep 29, 1958	8	70	SS1	40.7	963		Neutral	260 R/W
Not Named	Jun 20, 1959	3	70	SS1	16.6		E	Neutral	260 R/W
Cindy	Jul 12, 1959	4	45	TS	29.1		E	Neutral	260 R/W
Cleo	Aug 20, 1960	4	55	TS	19.9			Neutral	400 R
Not Named	Sep 15, 1961	6	35	TS	60.6			Neutral	400 R
Frances	Oct 10, 1961	7	35	TS	35.1		E	Neutral	260 R/W
Gerda	Oct 21, 1961	8	40	TS	18.8	994	E	Neutral	400 R
Alma	Sep 02, 1962	1	15	TD	50.4		E	Neutral	400 TD
Daisy	Oct 08, 1962	4	55	TS	19.0		E	Neutral	260 R/W
Ginny	Oct 29, 1963	8	90	SS2	27.1		E	El Nino	400 R
Dora	Sep 15, 1964	6	55	TS	26.5		E	La Nina	260 R/W
Gladys	Sep 24, 1964	9	65	SS1	40.4	973		La Nina	260 R/W
Becky	Jul 03, 1966	2	55	TS	17.5			Neutral	260 R/W
Celia	Jul 21, 1966	3	65	SS1	32.6	998		Neutral	260 R/W
Gladys	Oct 21, 1968	8	65	SS1	25.0	975	E	Neutral	260 R/W
Blanche	Aug 12, 1969	2	75	SS1	42.3			El Nino	400 R
Arlene	Jul 07, 1971	1	45	TS	28.7	1002		La Nina	400 R
Beth	Aug 16, 1971	3	65	SS1	16.0	984		La Nina	260 R/W
Carrie	Sep 05, 1972	4	40	TS	10.4		E	El Nino	400 R
Alice	Jul 06, 1973	1	60	TS	33.8			La Nina	260 R/W
Gilda	Oct 27, 1973	8	55	TS	31.3	980	E	La Nina	400 R
Dolly	Sep 05, 1974	7	40	TS	28.1			Neutral	400 R
Blanche	Jul 28, 1975	2	60	TS	37.5	988	E	La Nina	260 R/W
Evelyn	Oct 15, 1977	5	70	SS1	23.5	996		Neutral	260 R/W
David	Sep 07, 1979	4	55	TS	36.3	986	E	Neutral	260 R/W
Subtrop 1	Oct 25, 1979	9	60	TS	42.8	980	S	Neutral	260 R/W
Subtrop 1	Jun 20, 1982	2	60	TS	37.2	988	S	El Nino	400 R

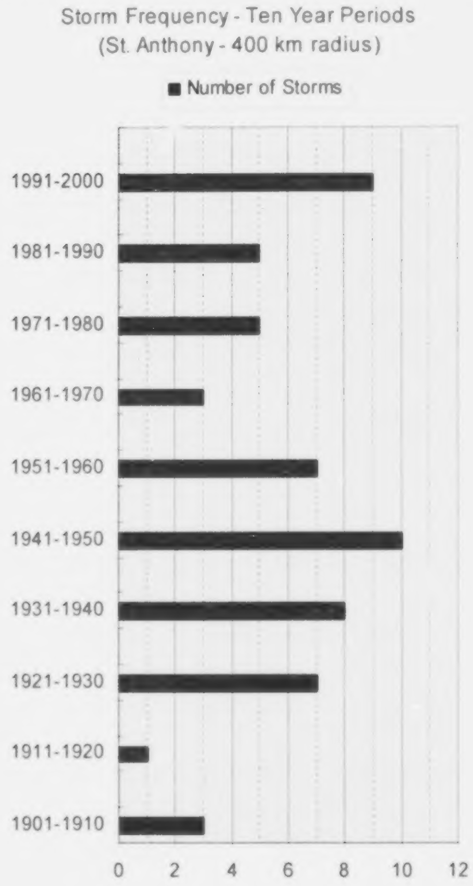
Name	Date	S#	MaxWind (kts)	SS Scale	AvgSysSpd (kts)	Pres (mb)	Comment	ENSO	R(km) R/W
Diana	Sep 16, 1984	5	60	TS	38.4	994		Neutral	260 R/W
Ana	Jul 19, 1985	1	60	TS	28.0	996		Neutral	260 R/W
Gloria	Sep 28, 1985	7	50	TS	24.5	987	E	Neutral	400 R
Alberto	Aug 08, 1988	1	35	TS	29.2	1004		La Nina	260 R/W
Chris	Aug 30, 1988	3	25	TD	38.0	1008		La Nina	260 TD
Dean	Aug 08, 1989	4	75	SS1	31.6	975		Neutral	260 R/W
Bertha	Aug 02, 1990	2	70	SS1	20.6	973		Neutral	260 R/W
Lili	Oct 14, 1990	12	45	TS	37.5	995		Neutral	260 R/W
Bob	Aug 20, 1991	2	45	TS	26.6	998		El Nino	260 R/W
Unnamed	Nov 02, 1991	8	50	TS	19.5	996		El Nino	400 R
Allison	Jun 08, 1995	1	50	TS	24.1	989	E	Neutral	260 R/W
Barry	Jul 09, 1995	2	50	TS	22.7	991		Neutral	260 R/W
Luis	Sep 11, 1995	12	80	SS1	48.9	965		Neutral	400 R
Bertha	Jul 14, 1996	2	50	TS	33.0	995	E	Neutral	260 R/W
Hortense	Sep 15, 1996	8	70	SS1	17.9	970		Neutral	260 R/W
Josephine	Oct 09, 1996	10	45	TS	30.3	984	E	Neutral	260 R/W
Bonnie	Aug 30, 1998	2	45	TS	30.3	1000		La Nina	400 R
Earl	Sep 05, 1998	5	50	TS	26.8	990	E	La Nina	400 R
Floyd	Sep 18, 1999	6	35	TS	23.7	990	E	La Nina	260 R/W
Leslie	Oct 08, 2000	12	40	TS	36.6	1003	E	La Nina	260 R/W
Michael	Oct 19, 2000	13	85	SS2	32.4	965		La Nina	260 R/W
Subtrop	Oct 29, 2000	15	50	TS	20.3	980	E	La Nina	260 R/W

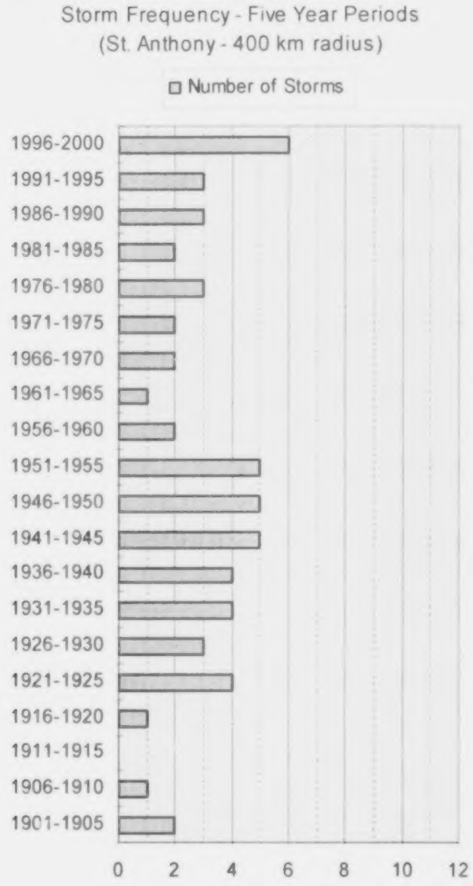
St. Anthony

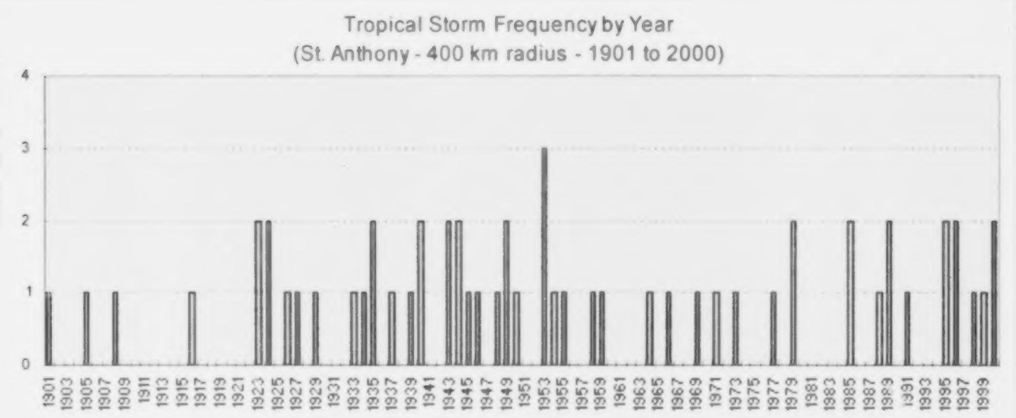




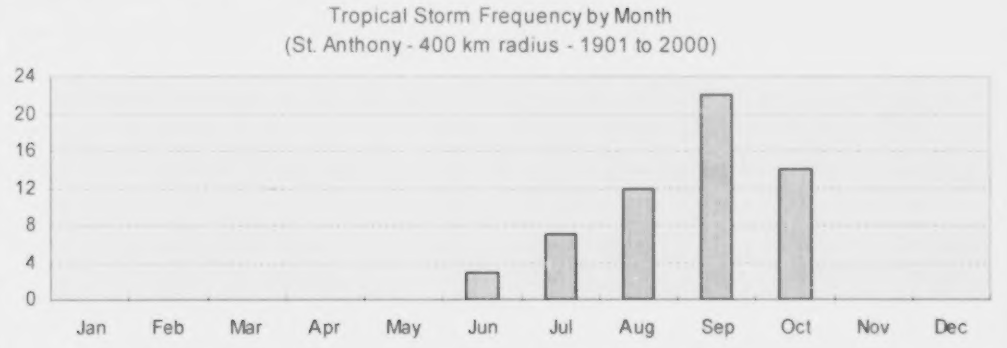
400 km Graphs - Frequency by Time-Periods (1901-2000)



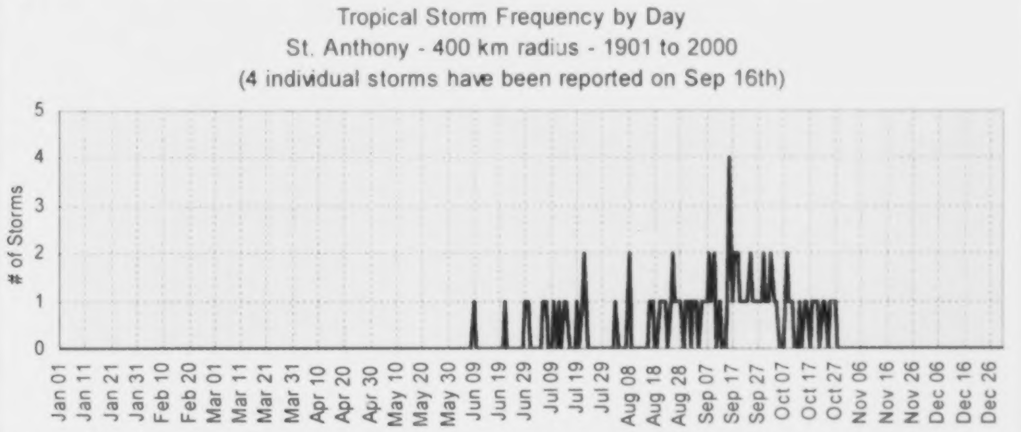




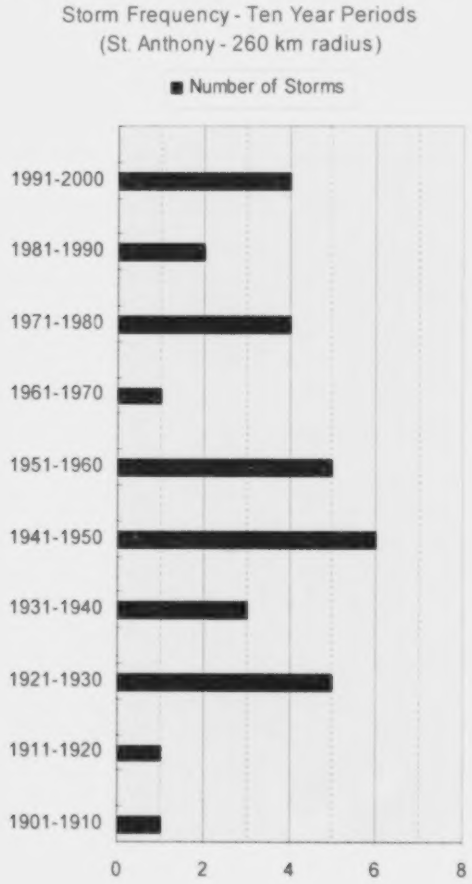
Note: Storms that span months were counted in both months

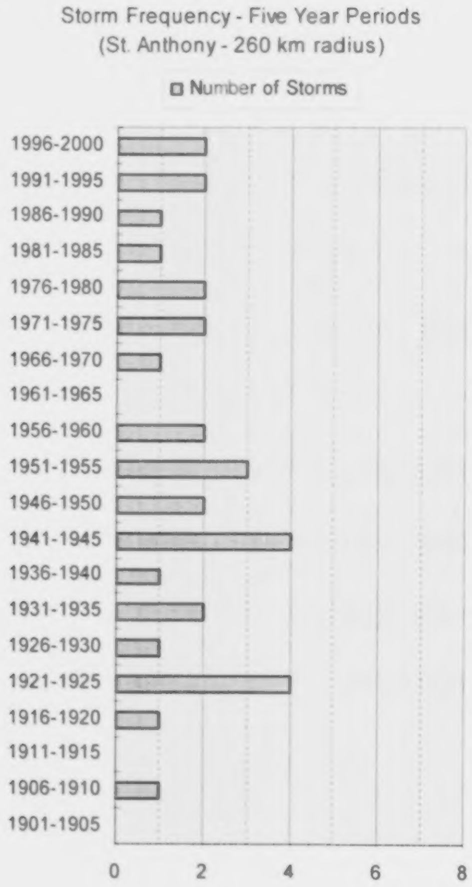


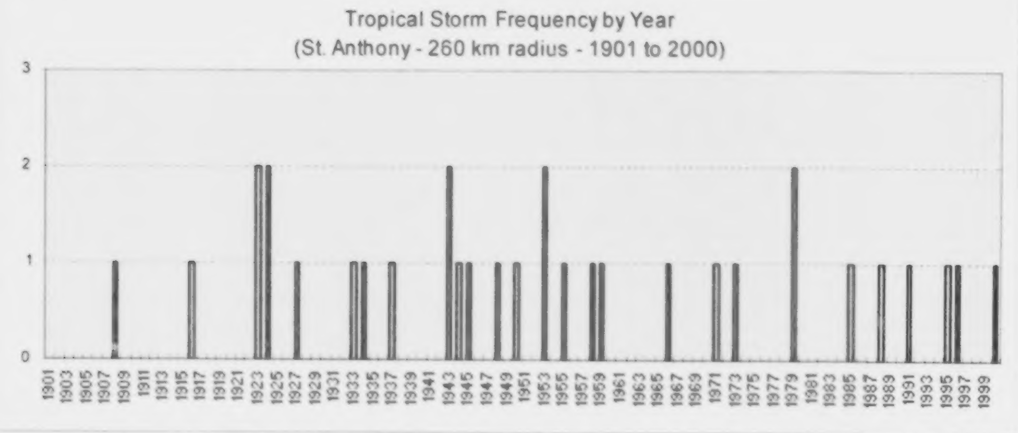
Note: Storms will generally span more than one day. The storm is counted in each day



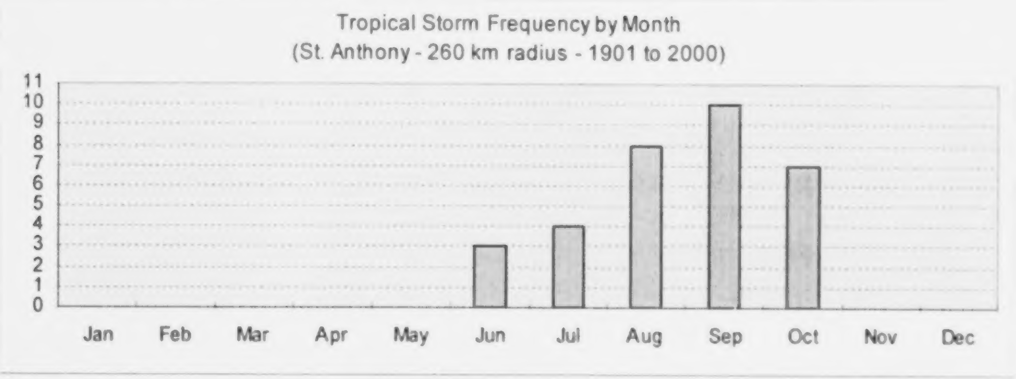
260 km Graphs - Frequency by Time-Periods (1901-2000)



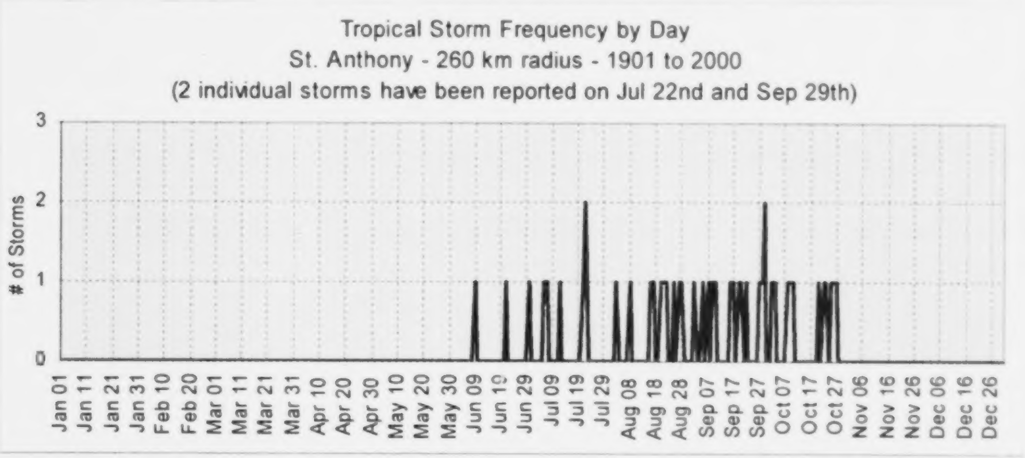




Note: Storms that span months were counted in both months



Note: Storms will generally span more than one day. The storm is counted in each day



St. Anthony – Summary Statistics 260 km Radius (gale swath)

100 Yr	**TD**	**TS**	**G**	**S**	**S1**	**S2**	**S3**	**S4**	**S5**	**H**	**<H**	**ALL**	**Sys-Spd**
#	2	24	12	12	5	1	0	0	0	6	26	32	29.3
Return	50	4.2	8.3	8.3	20	100	NA	NA	NA	16.7	3.8	3.1	
50 Yr	**TD**	**TS**	**G**	**S**	**S1**	**S2**	**S3**	**S4**	**S5**	**H**	**<H**	**ALL**	**Sys-Spd**
#	1	12	5	7	3	0	0	0	0	3	13	16	30.6
Return	50	4.2	10	7.1	16.7	NA	NA	NA	NA	16.7	3.8	3.1	

St. Anthony – Summary Statistics 400 km Radius (trace precipitation swath)

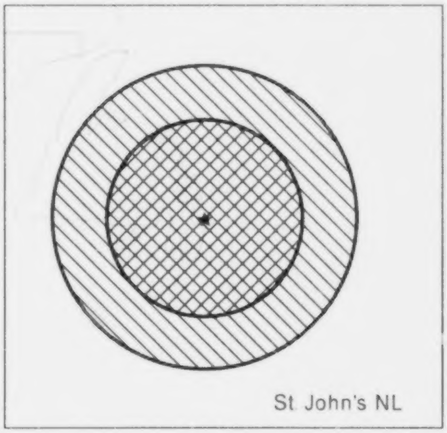
100 Yr	**TD**	**TS**	**G**	**S**	**S1**	**S2**	**S3**	**S4**	**S5**	**H**	**<H**	**ALL**	**Sys-Spd**
#	4	42	20	22	10	2	0	0	0	12	46	58	28.7
Return	25	2.4	5	4.5	10	50	NA	NA	NA	8.3	2.2	1.7	
50 Yr	**TD**	**TS**	**G**	**S**	**S1**	**S2**	**S3**	**S4**	**S5**	**H**	**<H**	**ALL**	**Sys-Spd**
#	0	24	10	14	4	1	0	0	0	5	24	29	28.3
Return	NA	2.1	5	3.6	12.5	50	NA	NA	NA	10	2.1	1.7	

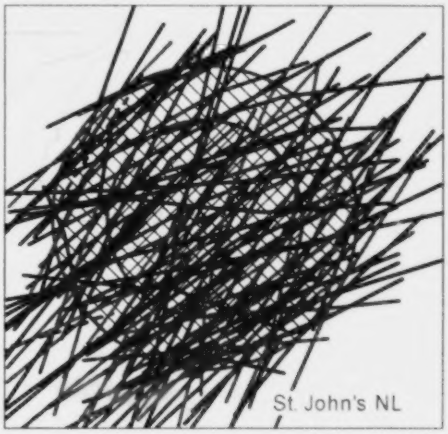
St. Anthony – Storms That Tracked Within 400 km of Site (R) and within 260 km of the Site (R/W)

Name	**Date**	**S#**	**MaxWind (kts)**	**SS Scale**	**AvgSysSpd (kts)**	**Pres (mb)**	**Comment**	**ENSO**	**R(km) R/W**
Not Named	Oct 01, 1901	8	35	TS	28.6		E	Neutral	400 R
Not Named	Oct 13, 1905	4	35	TS	17.4		E	El Nino	400 R
Not Named	Aug 03, 1908	2	55	TS	26.0		E	La Nina	260 R/W
Not Named	Jul 22, 1916	2	35	TS	52.2		E	La Nina	260 R/W
Not Named	Oct 02, 1923	2	70	SS1	20.6		E	Neutral	260 R/W
Not Named	Oct 27, 1923	4	35	TS	19.2		E	Neutral	260 R/W
Not Named	Aug 27, 1924	2	75	SS1	29.8		E	La Nina	260 R/W
Not Named	Sep 05, 1924	3	55	TS	25.1		E	La Nina	260 R/W
Not Named	Sep 23, 1926	4	50	TS	21.2		E	Neutral	400 R
Not Named	Aug 25, 1927	1	90	SS2	41.8		E	Neutral	260 R/W
Not Named	Oct 04, 1929	2	25	TD	62.0		E	El Nino	400 TD
Not Named	Sep 19, 1933	13	55	TS	13.0		E	Neutral	260 R/W
Not Named	Jun 21, 1934	2	35	TS	16.2		E	Neutral	260 R/W
Not Named	Aug 25, 1935	1	65	SS1	8.2		E	Neutral	400 R
Not Named	Oct 02, 1935	4	60	TS	29.7		E	Neutral	400 R
Not Named	Sep 26, 1937	7	70	SS1	26.3		E	Neutral	260 R/W
Not Named	Oct 18, 1939	4	65	SS1	36.3		E	Neutral	400 R
Not Named	Sep 03, 1940	4	35	TS	32.4			El Nino	400 R
Not Named	Sep 18, 1940	5	40	TS	14.8			El Nino	400 R
Not Named	Sep 09, 1943	4	55	TS	35.1			Neutral	260 R/W
Not Named	Sep 16, 1943	5	35	TS	32.8		E	Neutral	260 R/W
Not Named	Sep 16, 1944	7	30	TD	41.8		E	La Nina	400 TD
Not Named	Oct 22, 1944	11	40	TS	35.8		E	La Nina	260 R/W
Not Named	Jun 29, 1945	1	40	TS	20.3		E	Neutral	260 R/W
Not Named	Sep 16, 1946	4	50	TS	34.3		E	Neutral	400 R
Not Named	Sep 02, 1948	3	50	TS	25.9		E	Neutral	260 R/W
Not Named	Aug 30, 1949	2	30	TD	25.6		E	La Nina	400 TD
Not Named	Sep 10, 1949	4	65	SS1	41.5		E	La Nina	400 R
Able	Aug 22, 1950	1	30	TD	26.7			Neutral	260 TD
Barbara	Aug 16, 1953	2	55	TS	41.7		E	Neutral	260 R/W
Carol	Sep 08, 1953	4	55	TS	29.6		E	Neutral	400 R
Not Named	Oct 08, 1953	10	60	TS	28.7		E	Neutral	260 R/W
Edna	Sep 12, 1954	5	60	TS	25.4		E	La Nina	400 R
Ione	Sep 21, 1955	9	45	TS	20.4		E	La Nina	260 R/W
Helene	Sep 29, 1958	8	65	SS1	35.3	966		Neutral	260 R/W
Cindy	Jul 12, 1959	4	35	TS	28.8		E	Neutral	260 R/W
Dora	Sep 15, 1964	6	55	TS	27.8		E	La Nina	400 R
Celia	Jul 21, 1966	3	65	SS1	30.3		E	Neutral	260 R/W
Debbie	Aug 24, 1969	4	70	SS1	28.1			El Nino	400 R
Beth	Aug 17, 1971	3	60	TS	16.3	998	E	La Nina	260 R/W
Alice	Jul 06, 1973	1	60	TS	36.9	991		La Nina	260 R/W
Evelyn	Oct 15, 1977	5	70	SS1	18.0	999		Neutral	400 R
David	Sep 08, 1979	4	60	TS	38.3	985	E	Neutral	260 R/W
Subtrop 1	Oct 25, 1979	9	50	TS	41.5	982	S	Neutral	260 R/W
Ana	Jul 19, 1985	1	55	TS	29.1	996	E	Neutral	400 R

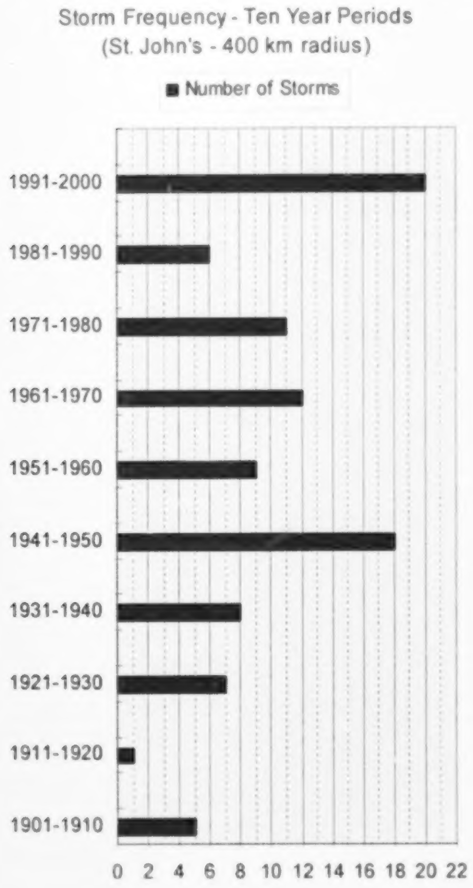
Name	Date	S#	MaxWind (kts)	SS Scale	AvgSysSpd (kts)	Pres (mb)	Comment	ENSO	R(km) R/W
Gloria	Sep 28, 1985	7	50	TS	24.1	987	E	Neutral	260 R/W
Alberto	Aug 08, 1988	1	35	TS	30.5	1006		La Nina	260 TD
Dean	Aug 08, 1989	4	55	TS	35.3	991		Neutral	400 R
Hugo	Sep 24, 1989	8	40	TS	14.3	994	E	Neutral	400 R
Bob	Aug 20, 1991	2	40	TS	25.1	1003	E	El Nino	260 R/W
Allison	Jun 09, 1995	1	40	TS	30.3	995	E	Neutral	260 R/W
Barry	Jul 10, 1995	2	45	TS	22.8	990		Neutral	400 R
Bertha	Jul 14, 1996	2	50	TS	35.9	995	E	Neutral	400 R
Josephine	Oct 10, 1996	10	45	TS	30.7	985	E	Neutral	260 R/W
Earl	Sep 06, 1998	5	55	TS	13.0	964	E	La Nina	400 R
Floyd	Sep 18, 1999	6	35	TS	23.1	992	E	La Nina	400 R
Leslie	Oct 08, 2000	12	40	TS	34.4	1003	E	La Nina	400 R
Michael	Oct 19, 2000	13	85	SS2	25.7	965		La Nina	260 R/W

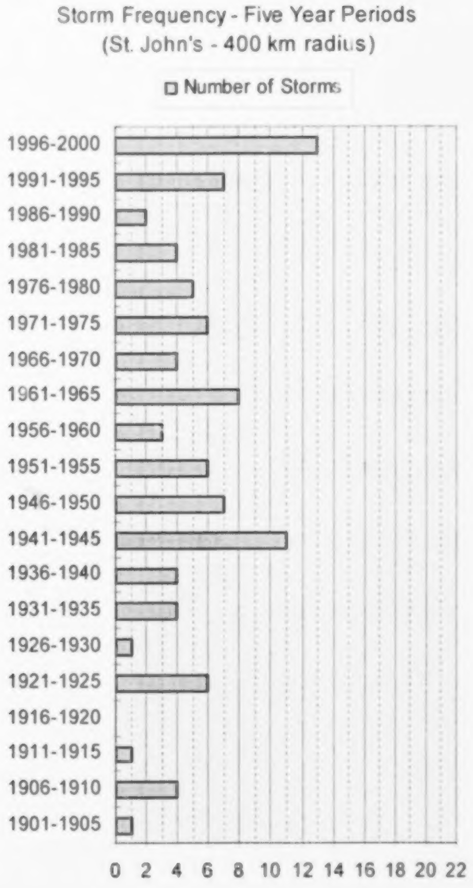
St. John's

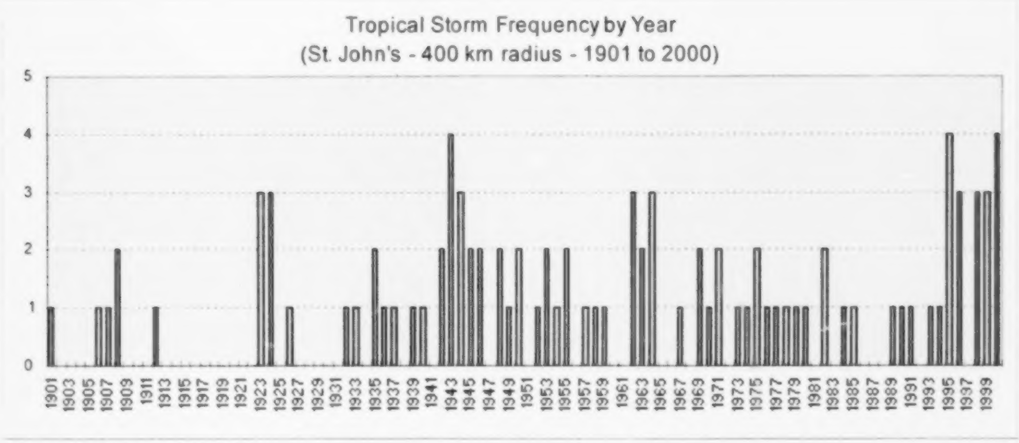




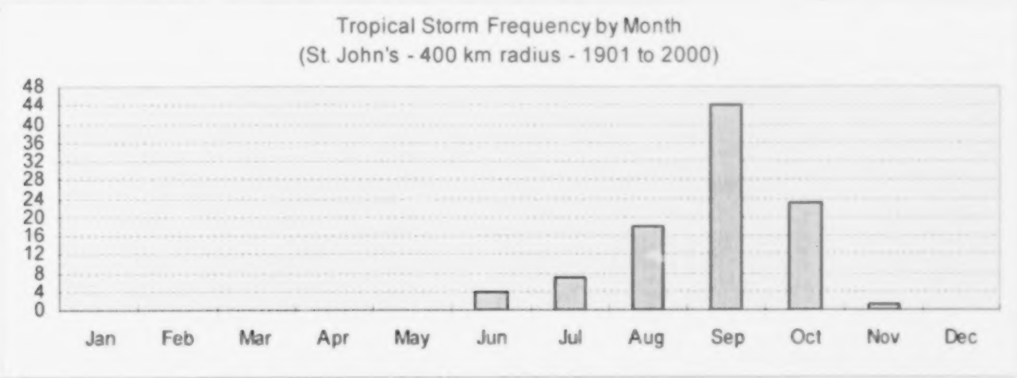
400 km Graphs - Frequency by Time-Periods (1901-2000)



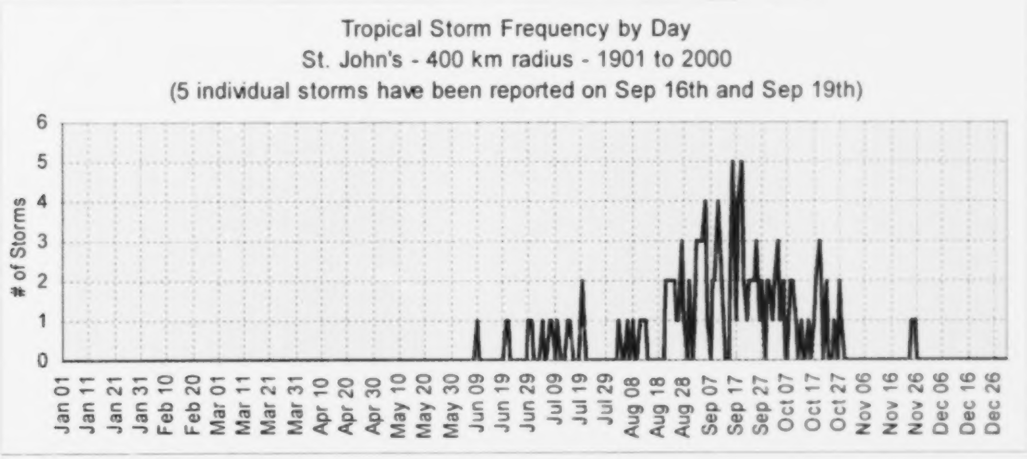




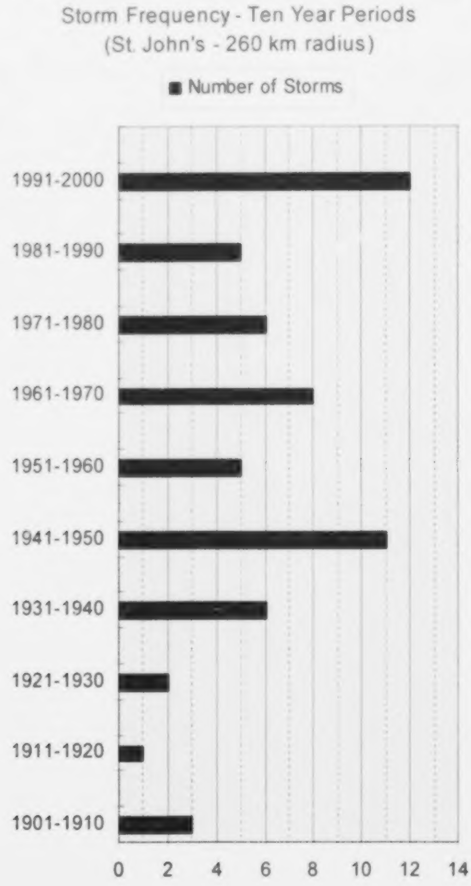
Note: Storms that span months were counted in both months

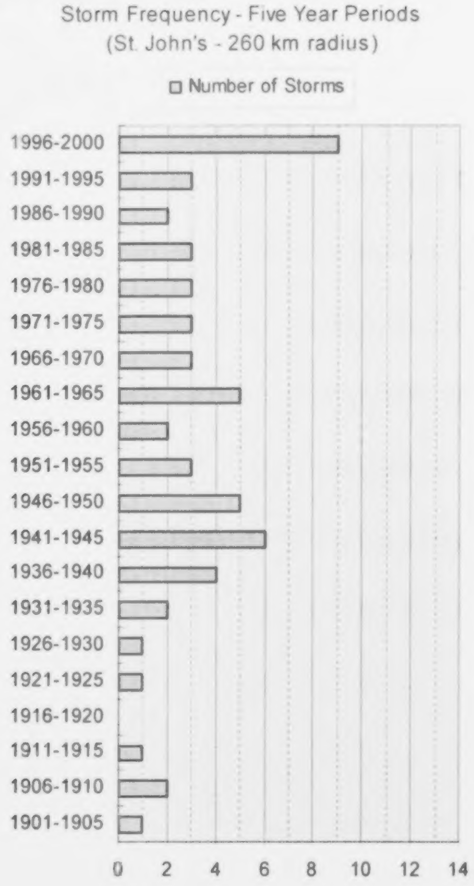


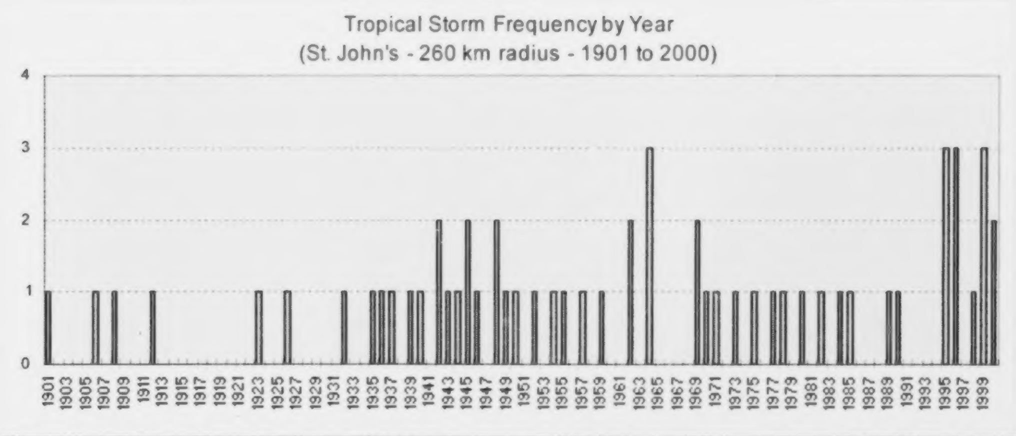
Note: Storms will generally span more than one day. The storm is counted in each day



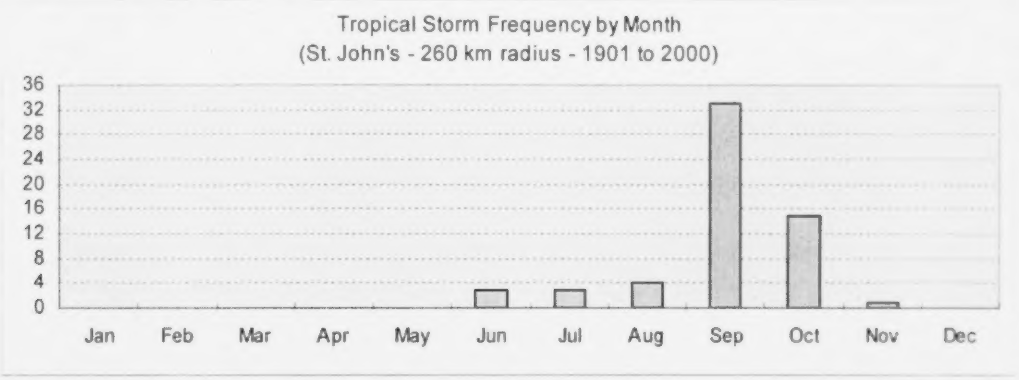
260 km Graphs - Frequency by Time-Periods (1901-2000)


Storm Frequency - Ten Year Periods
(St. John's - 260 km radius)

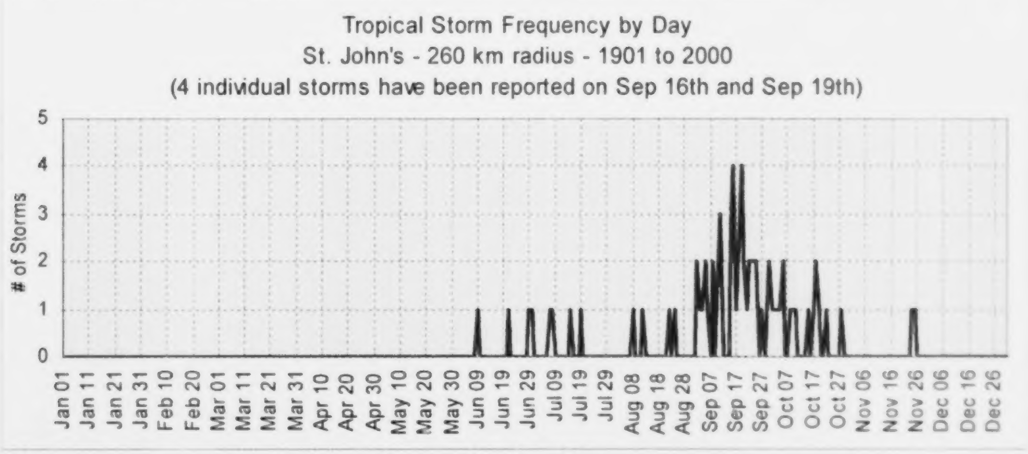

Storm Frequency - Five Year Periods
(St. John's - 260 km radius)


Tropical Storm Frequency by Year
(St. John's - 260 km radius - 1901 to 2000)

Note: Storms that span months were counted in both months


Tropical Storm Frequency by Month
(St. John's - 260 km radius - 1901 to 2000)

Note: Storms will generally span more than one day. The storm is counted in each day


Tropical Storm Frequency by Day
St. John's - 260 km radius - 1901 to 2000
(4 individual storms have been reported on Sep 16th and Sep 19th)

St. John's – Summary Statistics 260 km Radius (gale swath)

100 Yr	**TD**	**TS**	**G**	**S**	**S1**	**S2**	**S3**	**S4**	**S5**	**H**	**<H**	**ALL**	**Sys-Spd**
#	2	38	16	22	15	3	1	0	0	19	40	59	31.6
Return	50	2.6	6.3	4.5	6.7	33.3	100	NA	NA	5.3	2.5	1.7	
50 Yr	**TD**	**TS**	**G**	**S**	**S1**	**S2**	**S3**	**S4**	**S5**	**H**	**<H**	**ALL**	**Sys-Spd**
#	0	24	9	15	8	3	1	0	0	12	24	36	32.4
Return	NA	2.1	5.6	3.3	6.3	16.7	50	NA	NA	4.2	2.1	1.4	

St. John's – Summary Statistics 400 km Radius (trace precipitation swath)

100 Yr	**TD**	**TS**	**G**	**S**	**S1**	**S2**	**S3**	**S4**	**S5**	**H**	**<H**	**ALL**	**Sys-Spd**
#	4	57	28	29	31	3	1	1	0	36	61	97	31.0
Return	25	1.8	3.6	3.4	3.2	33.3	100	100	NA	2.8	1.6	1	
50 Yr	**TD**	**TS**	**G**	**S**	**S1**	**S2**	**S3**	**S4**	**S5**	**H**	**<H**	**ALL**	**Sys-Spd**
#	1	34	14	20	18	3	1	1	0	23	35	58	32.7
Return	50	1.5	3.6	2.5	2.8	16.7	50	50	NA	2.2	1.4	0.9	

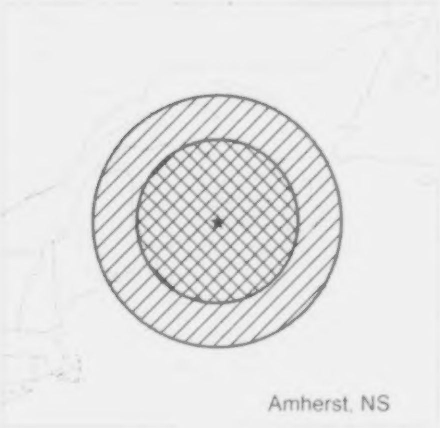
St. John's – Storms That Tracked Within 400 km of Site (R) and within 260 km of the Site (R/W)

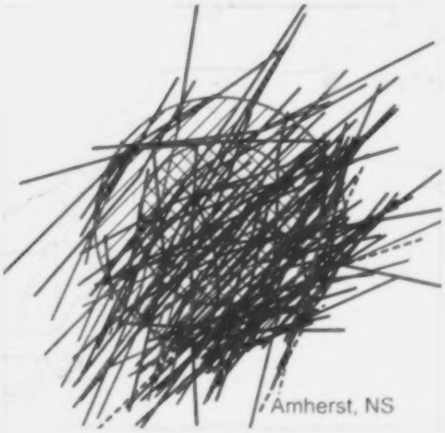
Name	**Date**	**S#**	**MaxWind (kts)**	**SS Scale**	**AvgSysSpd (kts)**	**Pres (mb)**	**Comment**	**ENSO**	**R(km) R/W**
Not Named	Oct 01, 1901	8	35	TS	31.1		E	Neutral	260 R/W
Not Named	Sep 11, 1906	3	80	SS1	39.2			La Nina	260 R/W
Not Named	Oct 19, 1907	4	40	TS	34.3			Neutral	400 R
Not Named	Aug 03, 1908	2	55	TS	26.0		E	La Nina	400 R
Not Named	Sep 18, 1908	4	70	SS1	25.0			La Nina	260 R/W
Not Named	Nov 24, 1912	6	55	TS	45.3		E	Neutral	260 R/W
Not Named	Sep 09, 1923	1	65	SS1	24.7			Neutral	260 R/W
Not Named	Oct 02, 1923	2	70	SS1	19.0		E	Neutral	400 R
Not Named	Oct 27, 1923	4	35	TS	19.1		E	Neutral	400 R
Not Named	Aug 27, 1924	2	75	SS1	29.5		E	La Nina	400 R
Not Named	Sep 05, 1924	3	55	TS	25.1		E	La Nina	400 R
Not Named	Sep 19, 1924	4	40	TS	37.6		E	La Nina	400 R
Not Named	Sep 22, 1926	4	60	TS	16.5		E	Neutral	260 R/W
Not Named	Sep 11, 1932	4	65	SS1	19.2		E	Neutral	260 R/W
Not Named	Aug 30, 1933	9	35	TS	21.4			Neutral	400 R
Not Named	Aug 25, 1935	1	70	SS1	16.8		E	Neutral	400 R
Not Named	Oct 02, 1935	4	60	TS	29.7		E	Neutral	260 R/W
Not Named	Sep 20, 1936	13	70	SS1	24.9			Neutral	260 R/W
Not Named	Sep 30, 1937	8	35	TS	24.6		E	Neutral	260 R/W
Not Named	Oct 18, 1939	4	80	SS1	35.2			Neutral	260 R/W
Not Named	Sep 18, 1940	5	40	TS	17.9			El Nino	260 R/W
Not Named	Sep 24, 1942	5	35	TS	17.1		E	La Nina	260 R/W
Not Named	Oct 05, 1942	7	35	TS	27.3		E	La Nina	260 R/W
Not Named	Aug 26, 1943	3	60	TS	27.0		E	Neutral	400 R
Not Named	Sep 09, 1943	4	55	TS	35.1			Neutral	400 R
Not Named	Sep 16, 1943	5	35	TS	29.0		E	Neutral	400 R
Not Named	Oct 03, 1943	8	40	TS	20.8		E	Neutral	260 R/W
Not Named	Sep 16, 1944	7	30	TD	41.8		E	La Nina	260 TD
Not Named	Sep 26, 1944	9	75	SS1	25.2			La Nina	400 R
Not Named	Oct 22, 1944	11	40	TS	32.7		E	La Nina	400 R
Not Named	Jun 29, 1945	1	40	TS	24.6		E	Neutral	260 R/W
Not Named	Sep 20, 1945	9	25	TD	34.3		E	Neutral	260 TD
Not Named	Jul 10, 1946	2	45	TS	18.9		E	Neutral	400 R
Not Named	Sep 16, 1946	4	50	TS	29.4		E	Neutral	260 R/W
Not Named	Sep 02, 1948	3	50	TS	38.3		E	Neutral	260 R/W
Not Named	Sep 15, 1948	6	75	SS1	39.6			Neutral	260 R/W
Not Named	Sep 10, 1949	4	75	SS1	39.1			La Nina	260 R/W
Able	Aug 22, 1950	1	30	TD	26.6			Neutral	400 TD
George	Oct 05, 1950	7	65	SS1	43.9		E	Neutral	260 R/W
Baker	Sep 08, 1952	3	70	SS1	34.4			Neutral	260 R/W
Not Named	Oct 08, 1953	10	60	TS	28.7		E	Neutral	400 R
Hazel	Oct 12, 1953	12	35	TS	25.6		E	Neutral	400 R
Dolly	Sep 03, 1954	4	65	SS1	34.0		E	La Nina	260 R/W
Diane	Aug 21, 1955	3	35	TS	28.2		E	La Nina	400 R
Ione	Sep 21, 1955	9	50	TS	20.2		E	La Nina	260 R/W

Name	Date	S#	MaxWind (kts)	SS Scale	AvgSysSpd (kts)	Pres (mb)	Comment	ENSO	R(km) R/W
Frieda	Sep 27, 1957	7	45	TS	25.3		E	El Nino	260 R/W
Helene	Sep 29, 1958	8	65	SS1	38.5	966		Neutral	400 R
Not Named	Jun 21, 1959	3	45	TS	26.0		E	Neutral	260 R/W
Alma	Sep 02, 1962	1	15	TD	50.4		E	Neutral	400 TD
Daisy	Oct 09, 1962	4	50	TS	20.2		E	Neutral	260 R/W
Ella	Oct 22, 1962	5	60	TS	39.6		E	Neutral	260 R/W
Arlene	Aug 11, 1963	1	65	SS1	26.8		E	El Nino	400 R
Beulah	Aug 27, 1963	2	70	SS1	44.5			El Nino	400 R
Cleo	Sep 04, 1964	5	75	SS1	27.1			La Nina	260 R/W
Dora	Sep 15, 1964	6	55	TS	28.0		E	La Nina	260 R/W
Gladys	Sep 24, 1964	9	60	TS	46.8	990	E	La Nina	260 R/W
Arlene	Sep 03, 1967	1	75	SS1	18.6			La Nina	400 R
Blanche	Aug 12, 1969	2	65	SS1	42.0	998		El Nino	260 R/W
Debbie	Aug 24, 1969	4	90	SS2	25.5			El Nino	260 R/W
Not Named	Oct 17, 1970	9	70	SS1	55.2	980		La Nina	260 R/W
Arlene	Jul 07, 1971	1	45	TS	27.5			La Nina	260 R/W
Not Named	Aug 06, 1971	2	75	SS1	40.7	974		La Nina	400 R
Gilda	Oct 27, 1973	8	55	TS	35.2	980	E	La Nina	260 R/W
Subtrop 2	Jul 20, 1974	2	40	TS	20.3		E	Neutral	400 R
Amy	Jul 04, 1975	1	50	TS	33.1	986		La Nina	400 R
Gladys	Oct 03, 1975	7	85	SS2	52.7	960		La Nina	260 R/W
Candice	Aug 23, 1976	4	80	SS1	22.9			El Nino	400 R
Dorothy	Sep 29, 1977	4	65	SS1	28.3	988		Neutral	260 R/W
Ella	Sep 04, 1978	6	115	SS4	40.0	956		Neutral	260 R/W
Subtrop 1	Oct 25, 1979	9	50	TS	41.5	982	S	Neutral	400 R
Georges	Sep 08, 1980	7	70	SS1	38.5	993		Neutral	260 R/W
Subtrop 1	Jun 20, 1982	2	60	TS	29.7	984	S	El Nino	400 R
Debby	Sep 18, 1982	5	100	SS3	26.7	960		El Nino	260 R/W
Cesar	Sep 02, 1984	4	50	TS	12.1	994		Neutral	260 R/W
Ana	Jul 19, 1985	1	55	TS	29.1	996	E	Neutral	260 R/W
Dean	Aug 08, 1989	4	65	SS1	34.5	978		Neutral	260 R/W
Lili	Oct 15, 1990	12	40	TS	37.1	995	E	Neutral	260 R/W
Bob	Aug 21, 1991	2	40	TS	23.6	1008	E	El Nino	400 R
Floyd	Sep 10, 1993	6	65	SS1	43.0	990		Neutral	400 R
Chris	Aug 23, 1994	3	45	TS	35.7	1003		Neutral	400 R
Allison	Jun 09, 1995	1	40	TS	27.1	995	E	Neutral	260 R/W
Chantal	Jul 20, 1995	3	50	TS	32.8	1000		Neutral	400 R
Felix	Aug 22, 1995	6	50	TS	40.5	986		Neutral	260 R/W
Luis	Sep 11, 1995	12	80	SS1	48.9	965		Neutral	260 R/W
Bertha	Jul 14, 1996	2	50	TS	35.9	995	E	Neutral	260 R/W
Hortense	Sep 15, 1996	8	60	TS	21.8	982		Neutral	260 R/W
Josephine	Oct 10, 1996	10	45	TS	31.4	985	E	Neutral	260 R/W
Bonnie	Aug 30, 1998	2	45	TS	25.4	1000		La Nina	400 R
Danielle	Sep 03, 1998	4	70	SS1	24.2	965		La Nina	400 R
Earl	Sep 06, 1998	5	55	TS	20.1	964	E	La Nina	260 R/W
Floyd	Sep 18, 1999	6	35	TS	25.8	992	E	La Nina	260 R/W
Gert	Sep 23, 1999	7	60	TS	26.2	964		La Nina	260 R/W
Irene	Oct 19, 1999	9	80	SS1	50.7	968		La Nina	260 R/W
Florence	Sep 17, 2000	6	50	TS	33.3	1000		La Nina	260 R/W
Helene	Sep 25, 2000	8	55	TS	51.8	988		La Nina	400 R
Leslie	Oct 08, 2000	12	40	TS	35.2	1003	E	La Nina	260 R/W
Michael	Oct 19, 2000	13	85	SS2	25.7	965		La Nina	400 R

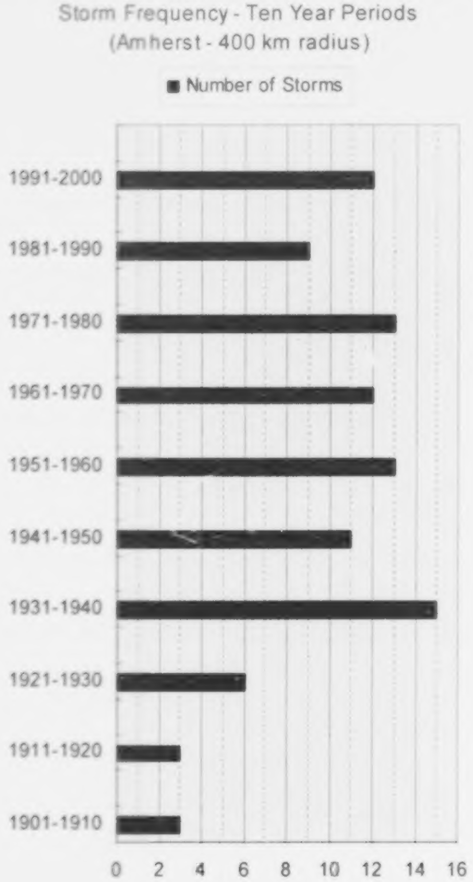
Nova Scotia

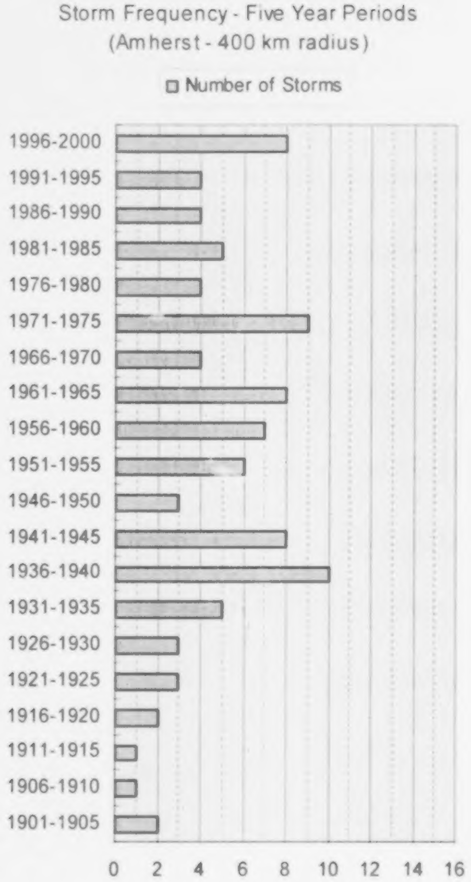
Amherst

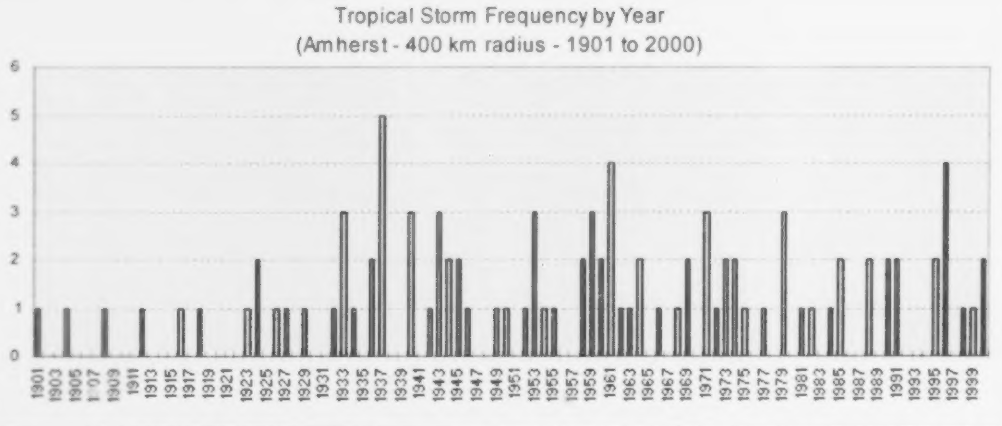




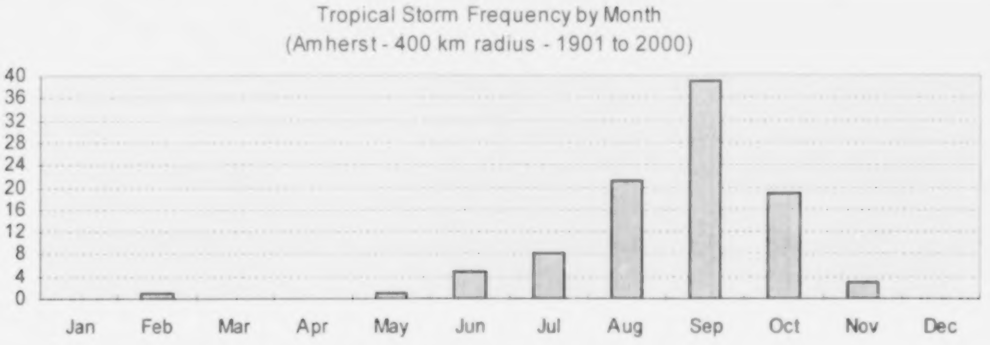
400 km Graphs - Frequency by Time-Periods (1901-2000)


Storm Frequency - Ten Year Periods
(Amherst - 400 km radius)

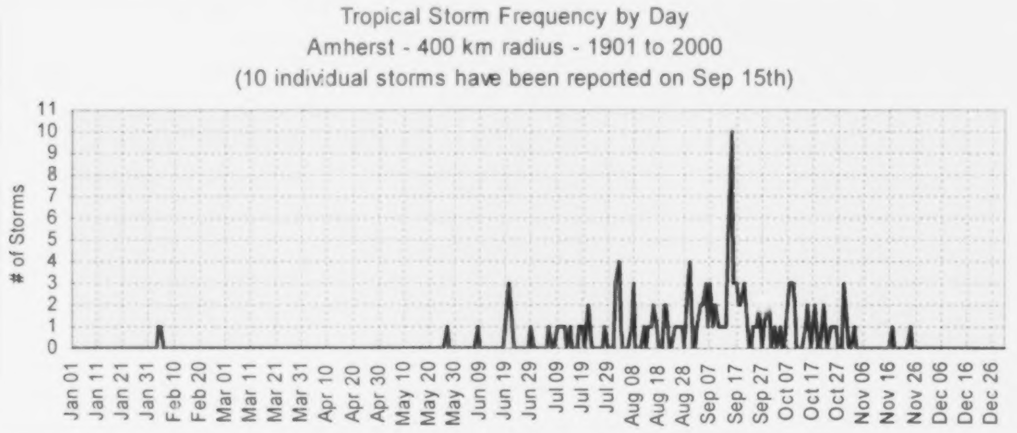

Storm Frequency - Five Year Periods
(Amherst - 400 km radius)


Tropical Storm Frequency by Year
(Amherst - 400 km radius - 1901 to 2000)

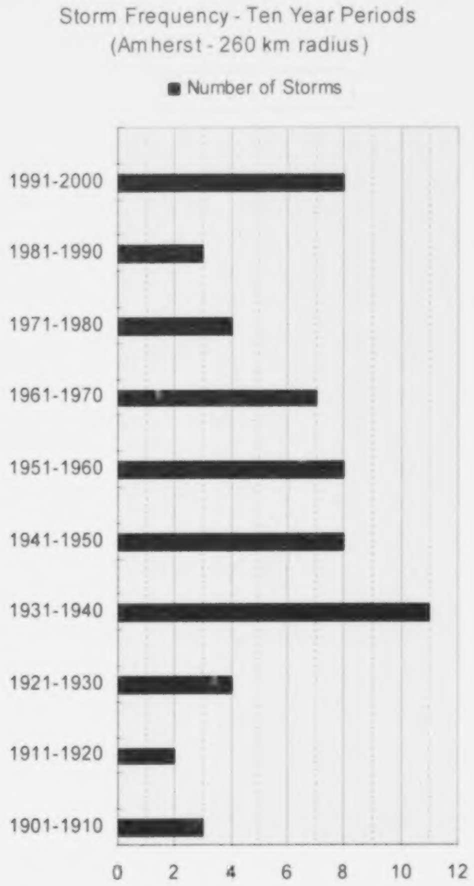
Note: Storms that span months were counted in both months

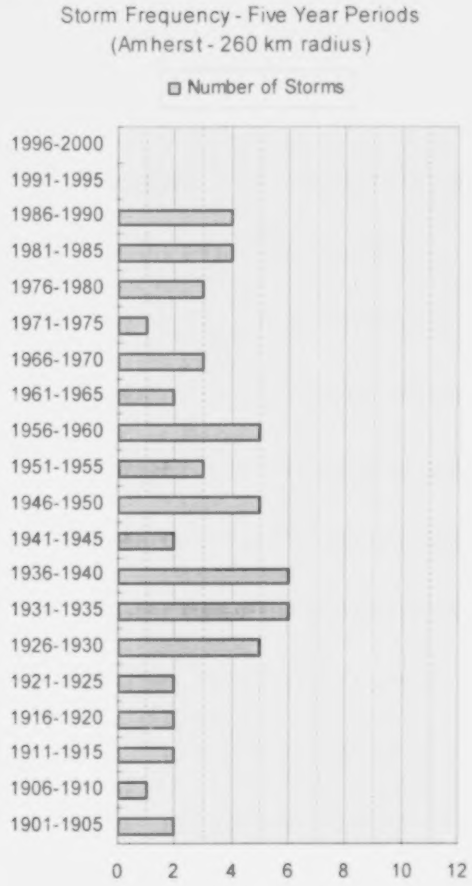

Tropical Storm Frequency by Month
(Amherst - 400 km radius - 1901 to 2000)

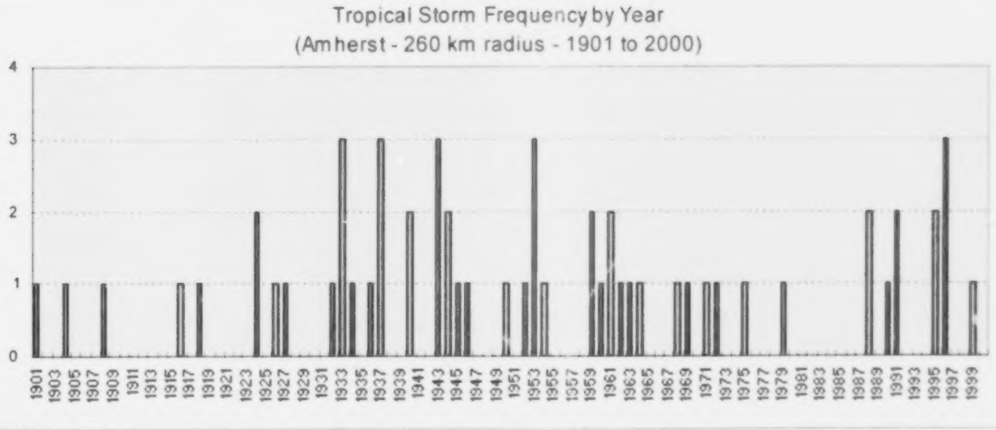
Note: Storms will generally span more than one day. The storm is counted in each day


Tropical Storm Frequency by Day
Amherst - 400 km radius - 1901 to 2000
(10 individual storms have been reported on Sep 15th)

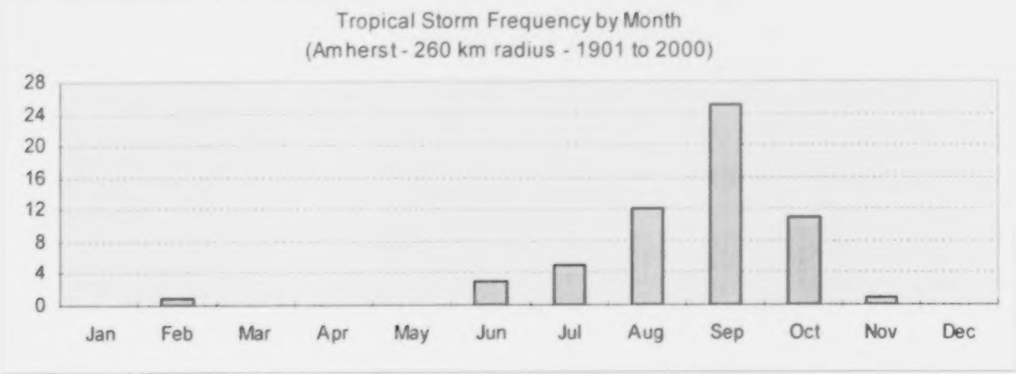
260 km Graphs - Frequency by Time-Periods (1901-2000)


Storm Frequency - Ten Year Periods
(Amherst - 260 km radius)

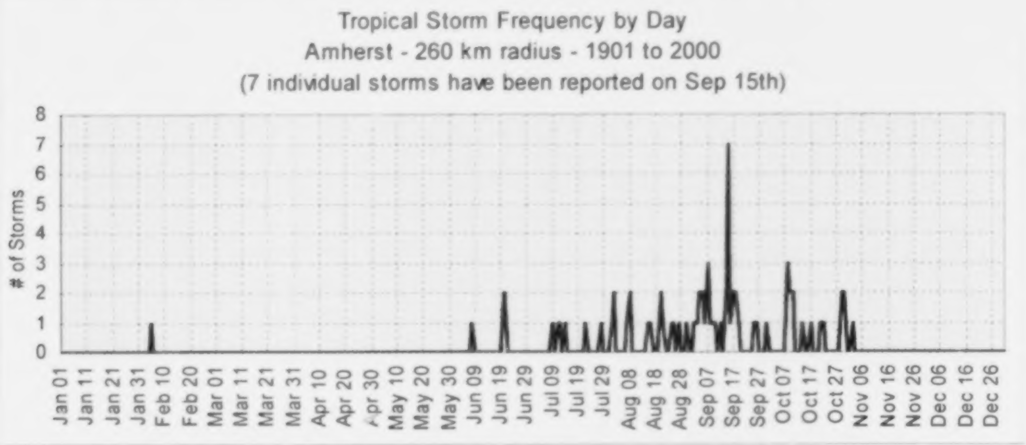

Storm Frequency - Five Year Periods
(Amherst - 260 km radius)


Tropical Storm Frequency by Year
(Amherst - 260 km radius - 1901 to 2000)

Note: Storms that span months were counted in both months


Tropical Storm Frequency by Month
(Amherst - 260 km radius - 1901 to 2000)

Note: Storms will generally span more than one day. The storm is counted in each day


Tropical Storm Frequency by Day
Amherst - 260 km radius - 1901 to 2000
(7 individual storms have been reported on Sep 15th)

Amherst – Summary Statistics 260 km Radius (gale swath)

100 Yr	**TD**	**TS**	**G**	**S**	**S1**	**S2**	**S3**	**S4**	**S5**	**H**	**<H**	**ALL**	**Sys-Spd**
#	3	32	14	18	17	6	0	0	0	23	35	58	27.8
Return	33.3	3.1	7.1	5.6	5.9	16.7	NA	NA	NA	4.3	2.9	1.7	
50 Yr	**TD**	**TS**	**G**	**S**	**S1**	**S2**	**S3**	**S4**	**S5**	**H**	**<H**	**ALL**	**Sys-Spd**
#	1	19	7	12	8	2	0	0	0	10	20	30	28.2
Return	50	2.6	7.1	4.2	6.3	25	NA	NA	NA	5	2.5	1.7	

Amherst – Summary Statistics 400 km Radius (trace precipitation swath)

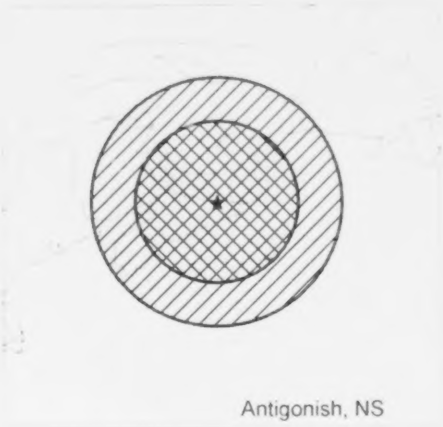
100 Yr	**TD**	**TS**	**G**	**S**	**S1**	**S2**	**S3**	**S4**	**S5**	**H**	**<H**	**ALL**	**Sys-Spd**
#	11	47	18	29	32	6	1	0	0	39	58	97	28.9
Return	9.1	2.1	5.6	3.4	3.1	16.7	100	NA	NA	2.6	1.7	1	
50 Yr	**TD**	**TS**	**G**	**S**	**S1**	**S2**	**S3**	**S4**	**S5**	**H**	**<H**	**ALL**	**Sys-Spd**
#	6	32	8	24	18	2	1	0	0	21	38	59	29.2
Return	8.3	1.6	6.3	2.1	2.8	25	50	NA	NA	2.4	1.3	0.8	

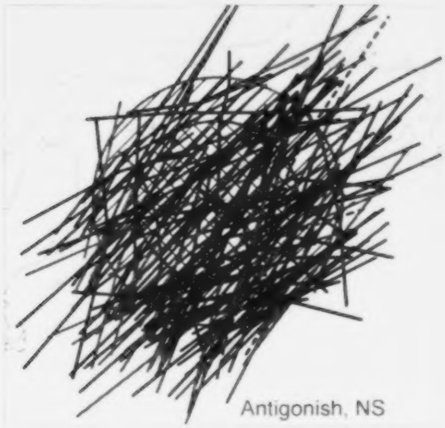
Amherst – Storms That Tracked Within 400 km of Site (R) and within 260 km of the Site (R/W)

Name	Date	S#	MaxWind (kts)	SS Scale	AvgSysSpd (kts)	Pres (mb)	Comment	ENSO	R(km) R/W
Not Named	Sep 30, 1901	8	30	TD	28.2		E	Neutral	260 TD
Not Named	Sep 15, 1904	2	65	SS1	59.8		E	El Nino	260 R/W
Not Named	Aug 02, 1908	2	85	SS2	22.9			La Nina	260 R/W
Not Named	Nov 24, 1912	6	60	TS	36.8		E	Neutral	400 R
Not Named	Jul 21, 1916	2	65	SS1	33.4			La Nina	260 R/W
Not Named	Sep 06, 1918	4	55	TS	19.4			El Nino	260 R/W
Not Named	Oct 26, 1923	4	30	TD	22.2		E	Neutral	400 TD
Not Named	Aug 26, 1924	2	90	SS2	35.6			La Nina	260 R/W
Not Named	Sep 04, 1924	3	70	SS1	25.9		E	La Nina	260 R/W
Not Named	Aug 08, 1926	2	75	SS1	25.0			Neutral	260 R/W
Not Named	Aug 24, 1927	1	90	SS2	53.1		E	Neutral	260 R/W
Not Named	Oct 04, 1929	2	25	TD	62.0		E	El Nino	400 TD
Not Named	Sep 17, 1932	5	35	TS	25.0		E	Neutral	260 R/W
Not Named	Sep 18, 1933	13	65	SS1	21.2		E	Neutral	260 R/W
Not Named	Oct 08, 1933	18	90	SS2	17.8		E	Neutral	260 R/W
Not Named	Oct 29, 1933	20	60	TS	14.0		E	Neutral	260 R/W
Not Named	Jun 20, 1934	2	40	TS	20.3		E	Neutral	260 R/W
Not Named	Sep 19, 1936	13	80	SS1	32.0			Neutral	400 R
Not Named	Sep 25, 1936	15	75	SS1	26.0		E	Neutral	260 R/W
Not Named	Aug 01, 1937	1	50	TS	14.1			Neutral	260 R/W
Not Named	Aug 08, 1937	2	40	TS	14.7			Neutral	400 R
Not Named	Sep 14, 1937	4	60	TS	26.7			Neutral	260 R/W
Not Named	Sep 26, 1937	7	80	SS1	25.2		E	Neutral	260 R/W
Not Named	Sep 29, 1937	8	35	TS	24.3		E	Neutral	400 R
Not Named	May 27, 1940	1	25	TD	17.5			El Nino	400 TD
Not Named	Sep 02, 1940	4	65	SS1	22.8			El Nino	260 R/W
Not Named	Sep 16, 1940	5	70	SS1	17.0			El Nino	260 R/W
Not Named	Oct 18, 1942	9	35	TS	37.9			La Nina	400 R
Not Named	Sep 09, 1943	4	70	SS1	28.2			Neutral	260 R/W
Not Named	Sep 15, 1943	5	40	TS	23.4		E	Neutral	260 R/W
Not Named	Oct 17, 1943	9	40	TS	38.3		E	Neutral	260 R/W
Not Named	Sep 15, 1944	7	65	SS1	36.8	966		La Nina	260 R/W
Not Named	Oct 22, 1944	11	45	TS	31.9		E	La Nina	260 R/W
Not Named	Jun 29, 1945	1	40	TS	16.2		E	Neutral	400 R
Not Named	Sep 19, 1945	9	25	TD	35.1		E	Neutral	260 TD
Not Named	Sep 15, 1946	4	65	SS1	27.1			Neutral	260 R/W
Not Named	Aug 29, 1949	2	35	TS	38.3		E	La Nina	400 R
Able	Aug 21, 1950	1	65	SS1	26.8			Neutral	260 R/W
Not Named	Feb 04, 1952	1	50	TS	30.9		E	Neutral	260 R/W
Barbara	Aug 15, 1953	2	75	SS1	34.0			Neutral	260 R/W
Carol	Sep 07, 1953	4	70	SS1	32.3			Neutral	260 R/W
Not Named	Oct 07, 1953	10	60	TS	21.5		E	Neutral	260 R/W
Edna	Sep 11, 1954	5	80	SS1	44.1			La Nina	260 R/W
Ione	Sep 21, 1955	9	60	TS	28.5		E	La Nina	400 R
Daisy	Aug 30, 1958	4	85	SS2	34.7	987	E	Neutral	400 R

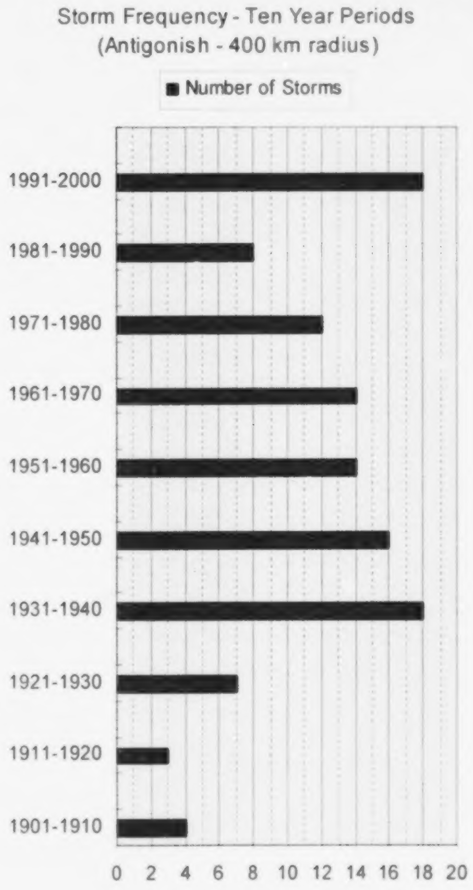
Name	Date	S#	MaxWind (kts)	SS Scale	AvgSysSpd (kts)	Pres (mb)	Comment	ENSO	R(km) R/W
Helene	Sep 29, 1958	8	70	SS1	45.2	963		Neutral	400 R
Not Named	Jun 19, 1959	3	70	SS1	17.0		E	Neutral	260 R/W
Cindy	Jul 11, 1959	4	50	TS	29.8			Neutral	260 R/W
Gracie	Oct 02, 1959	8	25	TD	32.3		E	Neutral	400 TD
Cleo	Aug 20, 1960	4	60	TS	20.0			Neutral	260 R/W
Donna	Sep 13, 1960	5	75	SS1	38.8			Neutral	400 R
Esther	Sep 26, 1961	5	30	TD	18.3	1002		Neutral	400 TD
Not Named	Sep 15, 1961	6	35	TS	60.6			Neutral	260 R/W
Frances	Oct 09, 1961	7	65	SS1	16.5			Neutral	260 R/W
Gerda	Oct 21, 1961	8	60	TS	16.8	993	E	Neutral	400 R
Daisy	Oct 07, 1962	4	65	SS1	14.9			Neutral	260 R/W
Ginny	Oct 29, 1963	8	95	SS2	29.1	958		El Nino	260 R/W
Dora	Sep 14, 1964	6	55	TS	28.5		E	La Nina	260 R/W
Gladys	Sep 24, 1964	9	65	SS1	36.2	982		La Nina	400 R
Celia	Jul 21, 1966	3	70	SS1	36.8	998		Neutral	400 R
Gladys	Oct 21, 1968	8	65	SS1	30.1			Neutral	260 R/W
Blanche	Aug 12, 1969	2	75	SS1	42.5			El Nino	400 R
Gerda	Sep 09, 1969	7	110	SS3	44.9	979		El Nino	260 R/W
Beth	Aug 16, 1971	3	65	SS1	14.8	978		La Nina	260 R/W
Doria	Aug 29, 1971	5	35	TS	24.2		E	La Nina	400 R
Heidi	Sep 14, 1971	9	40	TS	18.1	998		La Nina	400 R
Carrie	Sep 04, 1972	4	50	TS	12.2		E	El Nino	260 R/W
Alice	Jul 06, 1973	1	60	TS	30.8			La Nina	400 R
Alfa	Aug 01, 1973	2	25	TD	14.3	1008	S	La Nina	400 TD
Subtrop 3	Aug 14, 1974	3	50	TS	22.0		S	Neutral	400 R
Dolly	Sep 05, 1974	7	40	TS	31.7			Neutral	400 R
Blanche	Jul 28, 1975	2	70	SS1	33.5	980		La Nina	260 R/W
Evelyn	Oct 15, 1977	5	70	SS1	26.3	996		Neutral	400 R
David	Sep 07, 1979	4	50	TS	34.3	988	E	Neutral	260 R/W
Frederic	Sep 14, 1979	6	30	TD	78.7	998	E	Neutral	400 TD
Subtrop 1	Oct 24, 1979	9	65	SS1	37.5	985	S	Neutral	400 R
Subtrop 3	Nov 17, 1981	12	50	TS	17.8	985	S	Neutral	400 R
Subtrop 1	Jun 20, 1982	2	60	TS	39.9	992	S	El Nino	400 R
Diana	Sep 15, 1984	5	60	TS	38.8	992		Neutral	400 R
Ana	Jul 19, 1985	1	60	TS	24.4	996		Neutral	400 R
Gloria	Sep 28, 1985	7	50	TS	28.0	986	E	Neutral	400 R
Alberto	Aug 07, 1988	1	35	TS	26.5	1002		La Nina	260 R/W
Chris	Aug 30, 1988	3	25	TD	38.1	1008		La Nina	260 TD
Bertha	Aug 02, 1990	2	70	SS1	20.6	973		Neutral	400 R
Lili	Oct 14, 1990	12	50	TS	35.0	995		Neutral	260 R/W
Bob	Aug 20, 1991	2	60	TS	24.6	977		El Nino	260 R/W
Unnamed	Nov 02, 1991	8	60	TS	24.7	988		El Nino	260 R/W
Allison	Jun 08, 1995	1	50	TS	22.5	984	E	Neutral	260 R/W
Barry	Jul 09, 1995	2	50	TS	22.6	993		Neutral	260 R/W
Bertha	Jul 14, 1996	2	55	TS	31.0	995		Neutral	260 R/W
Edouard	Sep 03, 1996	5	55	TS	15.6	985	E	Neutral	400 R
Hortense	Sep 14, 1996	8	75	SS1	21.0	960		Neutral	260 R/W
Josephine	Oct 09, 1996	10	45	TS	30.8	980	E	Neutral	260 R/W
Bonnie	Aug 29, 1998	2	45	TS	31.6	1000		La Nina	400 R
Floyd	Sep 17, 1999	6	45	TS	18.9	985	E	La Nina	260 R/W
Gordon	Sep 20, 2000	7	30	TD	16.1	1005	E	La Nina	400 TD
Subtrop	Oct 29, 2000	15	55	TS	30.1	978	S	La Nina	400 R

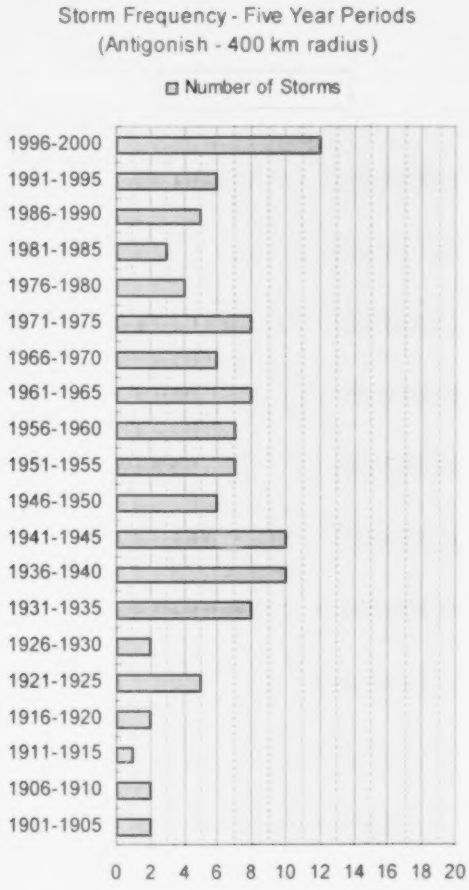
Antigonish

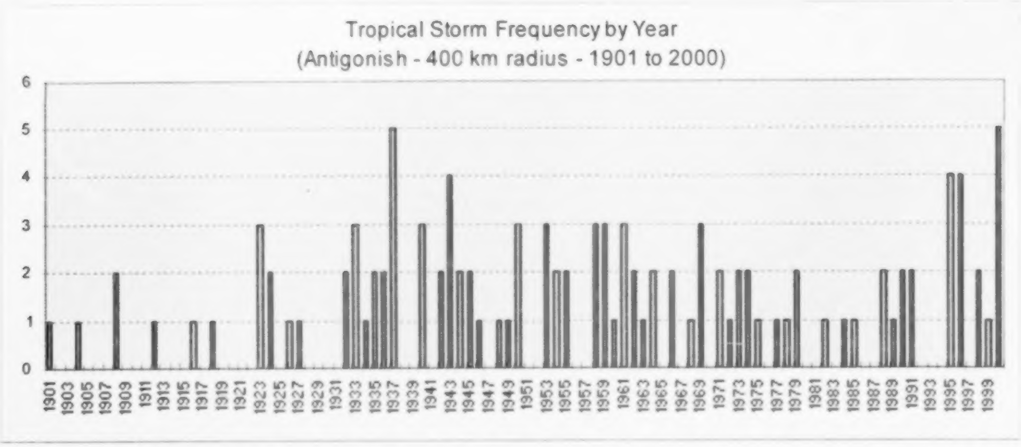




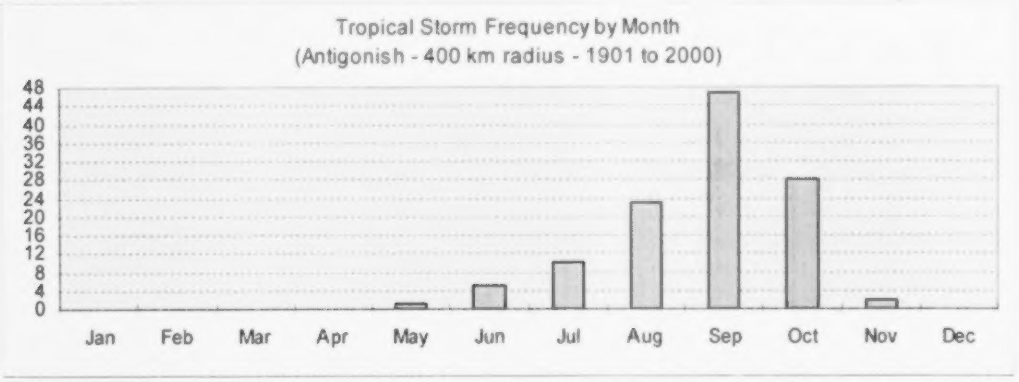
400 km Graphs - Frequency by Time-Periods (1901-2000)


Storm Frequency - Ten Year Periods (Antigonish - 400 km radius)

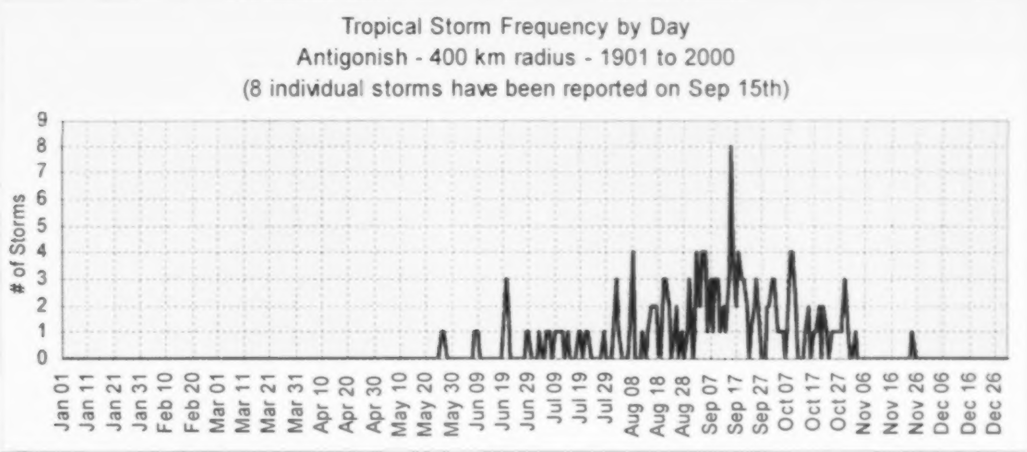

Storm Frequency - Five Year Periods (Antigonish - 400 km radius)



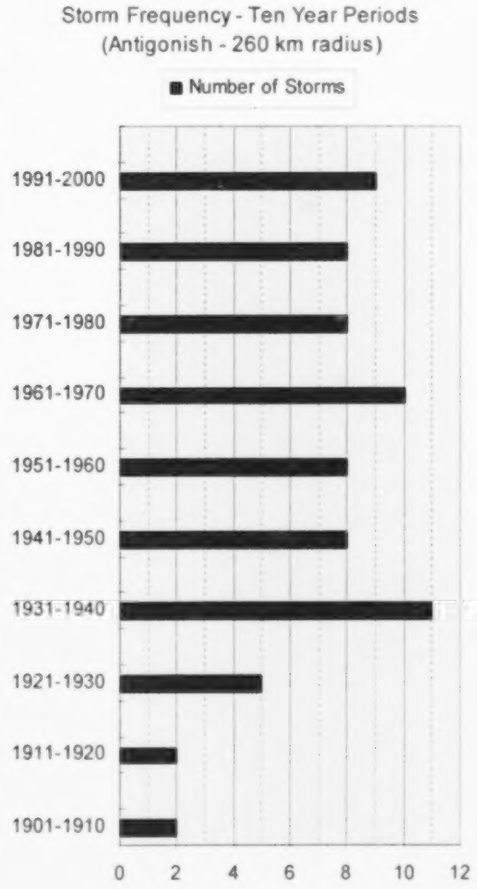
Note: Storms that span months were counted in both months

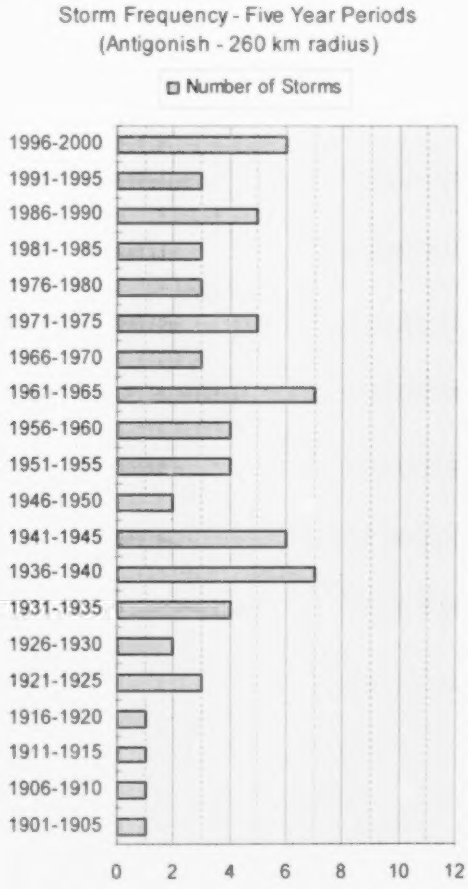


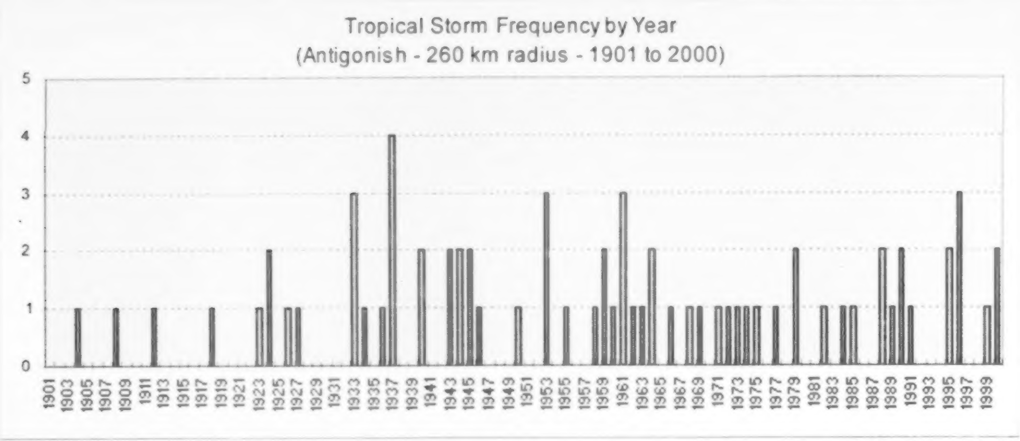
Note: Storms will generally span more than one day. The storm is counted in each day


Tropical Storm Frequency by Day
Antigonish - 400 km radius - 1901 to 2000
(8 individual storms have been reported on Sep 15th)

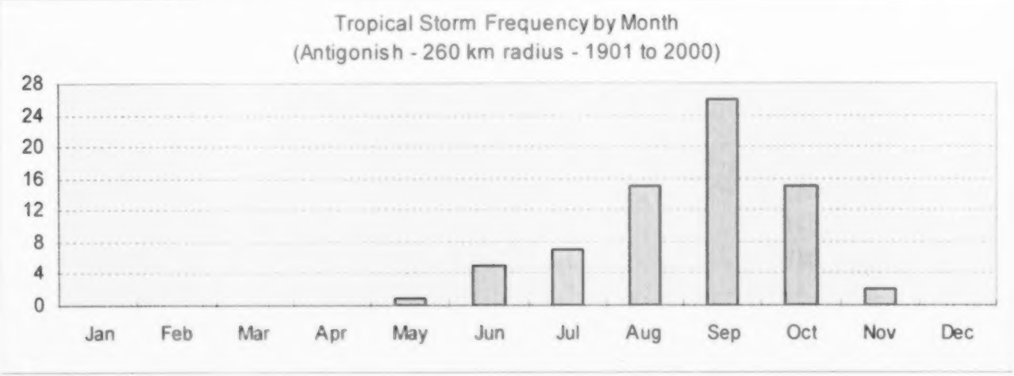
260 km Graphs - Frequency by Time-Periods (1901-2000)


Storm Frequency - Ten Year Periods
(Antigonish - 260 km radius)

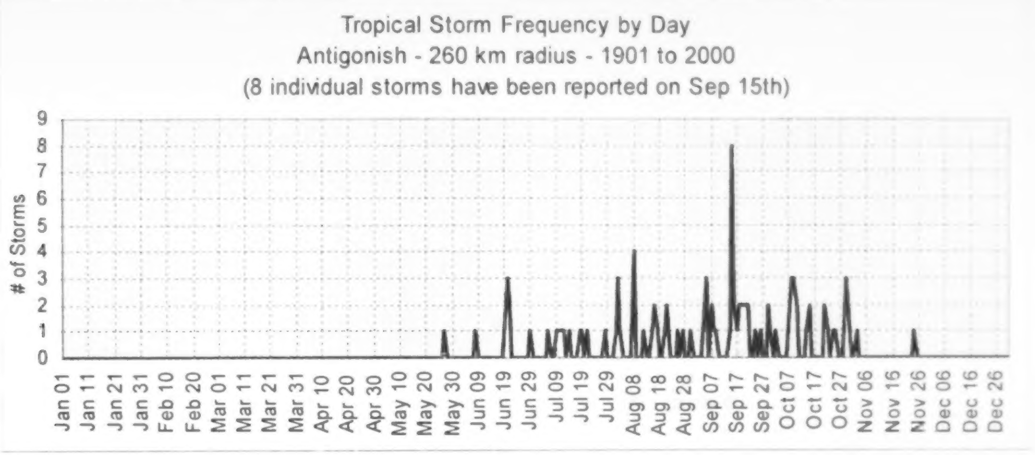

Storm Frequency - Five Year Periods
(Antigonish - 260 km radius)



Note: Storms that span months were counted in both months



Note: Storms will generally span more than one day. The storm is counted in each day



Tropical Storm Frequency by Day
Antigonish - 260 km radius - 1901 to 2000
(8 individual storms have been reported on Sep 15th)

Antigonish – Summary Statistics 260 km Radius (gale swath)

100 Yr	TD	TS	G	S	S1	S2	S3	S4	S5	H	<H	ALL	Sys-Spd
#	4	39	16	23	23	5	0	0	0	28	43	71	28.3
Return	25	2.6	6.3	4.3	4.3	20	NA	NA	NA	3.6	2.3	1.4	
50 Yr	**TD**	**TS**	**G**	**S**	**S1**	**S2**	**S3**	**S4**	**S5**	**H**	**<H**	**ALL**	**Sys-Spd**
#	2	26	8	18	14	1	0	0	0	15	28	43	29.1
Return	25	1.9	6.3	2.8	3.6	50	NA	NA	NA	3.3	1.8	1.2	

Antigonish – Summary Statistics 400 km Radius (trace precipitation swath)

100 Yr	TD	TS	G	S	S1	S2	S3	S4	S5	H	<H	ALL	Sys-Spd
#	9	55	25	30	38	11	0	1	0	50	64	114	28.5
Return	11.1	1.8	4	3.3	2.6	9.1	NA	100	NA	2	1.6	0.9	
50 Yr	**TD**	**TS**	**G**	**S**	**S1**	**S2**	**S3**	**S4**	**S5**	**H**	**<H**	**ALL**	**Sys-Spd**
#	5	34	11	23	22	4	0	1	0	27	39	66	30.6
Return	10	1.5	4.5	2.2	2.3	12.5	NA	50	NA	1.9	1.3	0.8	

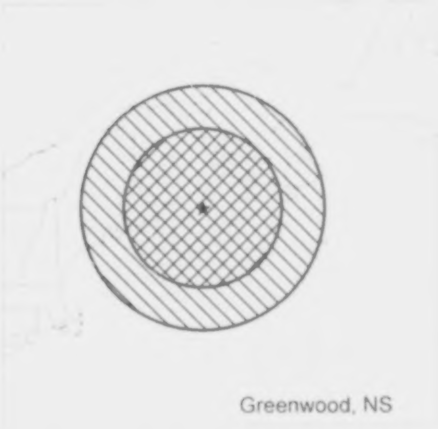
Antigonish – Storms That Tracked Within 400 km of Site (R) and within 260 km of the Site (R/W)

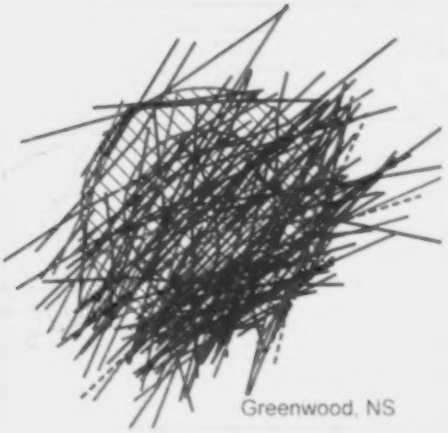
Name	Date	S#	MaxWind (kts)	SS Scale	AvgSysSpd (kts)	Pres (mb)	Comment	ENSO	R(km) R/W
Not Named	Sep 30, 1901	8	30	TD	25.6		E	Neutral	400 TD
Not Named	Sep 15, 1904	2	65	SS1	59.8		E	El Nino	260 R/W
Not Named	Aug 02, 1908	2	85	SS2	22.0			La Nina	260 R/W
Not Named	Sep 18, 1908	4	70	SS1	18.1			La Nina	400 R
Not Named	Nov 24, 1912	6	60	TS	38.9		E	Neutral	260 R/W
Not Named	Jul 22, 1916	2	55	TS	36.4			La Nina	400 R
Not Named	Sep 06, 1918	4	55	TS	19.4			El Nino	260 R/W
Not Named	Sep 09, 1923	1	65	SS1	29.3			Neutral	400 R
Not Named	Oct 01, 1923	2	85	SS2	14.5		E	Neutral	260 R/W
Not Named	Oct 26, 1923	4	30	TD	20.5		E	Neutral	400 TD
Not Named	Aug 27, 1924	2	85	SS2	33.1		E	La Nina	260 R/W
Not Named	Sep 04, 1924	3	70	SS1	26.1		E	La Nina	260 R/W
Not Named	Aug 08, 1926	2	75	SS1	25.0			Neutral	260 R/W
Not Named	Aug 24, 1927	1	90	SS2	50.6		E	Neutral	260 R/W

Name	Date	S#	MaxWind (kts)	SS Scale	AvgSysSpd (kts)	Pres (mb)	Comment	ENSO	R(km) R/W
Not Named	Sep 09, 1932	4	85	SS2	13.3		E	Neutral	400 R
Not Named	Sep 17, 1932	5	35	TS	25.0		E	Neutral	400 R
Not Named	Sep 18, 1933	13	65	SS1	19.8		E	Neutral	260 R/W
Not Named	Oct 08, 1933	18	90	SS2	17.8		E	Neutral	260 R/W
Not Named	Oct 29, 1933	20	60	TS	13.4		E	Neutral	260 R/W
Not Named	Jun 20, 1934	2	40	TS	20.3		E	Neutral	260 R/W
Not Named	Aug 25, 1935	1	75	SS1	19.9		E	Neutral	400 R
Not Named	Oct 01, 1935	4	75	SS1	32.9		E	Neutral	400 R
Not Named	Sep 19, 1936	13	80	SS1	32.0			Neutral	260 R/W
Not Named	Sep 25, 1936	15	75	SS1	26.0		E	Neutral	400 R
Not Named	Aug 01, 1937	1	45	TS	12.5			Neutral	260 R/W
Not Named	Aug 08, 1937	2	40	TS	14.7			Neutral	260 R/W
Not Named	Sep 14, 1937	4	55	TS	26.5			Neutral	400 R
Not Named	Sep 26, 1937	7	80	SS1	22.8		E	Neutral	260 R/W
Not Named	Sep 29, 1937	8	35	TS	24.3		E	Neutral	260 R/W
Not Named	May 26, 1940	1	30	TD	15.9			El Nino	260 TD
Not Named	Sep 02, 1940	4	65	SS1	22.8			El Nino	400 R
Not Named	Sep 17, 1940	5	65	SS1	16.7			El Nino	260 R/W
Not Named	Sep 23, 1942	5	35	TS	10.6		E	La Nina	400 R
Not Named	Oct 18, 1942	9	35	TS	37.9			La Nina	400 R
Not Named	Sep 09, 1943	4	75	SS1	28.6			Neutral	260 R/W
Not Named	Sep 15, 1943	5	40	TS	23.4		E	Neutral	260 R/W
Not Named	Oct 03, 1943	8	45	TS	25.1			Neutral	400 R
Not Named	Oct 17, 1943	9	40	TS	38.3		E	Neutral	400 R
Not Named	Sep 15, 1944	7	35	TS	40.8		E	La Nina	260 R/W
Not Named	Oct 22, 1944	11	45	TS	31.9		E	La Nina	260 R/W
Not Named	Jun 28, 1945	1	45	TS	12.1		E	Neutral	260 R/W
Not Named	Sep 19, 1945	9	25	TD	35.1		E	Neutral	260 TD
Not Named	Sep 15, 1946	4	65	SS1	29.3			Neutral	260 R/W
Not Named	Sep 01, 1948	3	60	TS	29.7		E	Neutral	400 R
Not Named	Oct 19, 1949	11	45	TS	14.5		E	La Nina	400 R
Able	Aug 21, 1950	1	65	SS1	26.8			Neutral	260 R/W
Dog	Sep 12, 1950	4	60	TS	12.8		E	Neutral	400 R
George	Oct 04, 1950	7	95	SS2	35.0			Neutral	400 R
Barbara	Aug 15, 1953	2	75	SS1	34.0			Neutral	260 R/W
Carol	Sep 07, 1953	4	65	SS1	31.9			Neutral	260 R/W
Not Named	Oct 07, 1953	10	60	TS	21.5		E	Neutral	260 R/W
Dolly	Sep 02, 1954	4	70	SS1	37.1		E	La Nina	400 R
Edna	Sep 12, 1954	5	65	SS1	44.8		E	La Nina	400 R
Diane	Aug 20, 1955	3	35	TS	26.5			La Nina	400 R
Ione	Sep 21, 1955	9	75	SS1	31.7			La Nina	260 R/W
Becky	Aug 17, 1958	2	25	TD	40.7		E	Neutral	400 TD
Daisy	Aug 30, 1958	4	85	SS2	34.1	987	E	Neutral	400 R
Helene	Sep 29, 1958	8	70	SS1	41.0	963		Neutral	260 R/W
Not Named	Jun 19, 1959	3	70	SS1	18.1		E	Neutral	260 R/W
Cindy	Jul 11, 1959	4	50	TS	29.7		E	Neutral	260 R/W
Gracie	Oct 02, 1959	8	25	TD	32.3		E	Neutral	400 TD
Cleo	Aug 20, 1960	4	60	TS	20.0			Neutral	260 R/W
Not Named	Sep 15, 1961	6	35	TS	60.6			Neutral	260 R/W
Frances	Oct 09, 1961	7	40	TS	22.1		E	Neutral	260 R/W
Gerda	Oct 21, 1961	8	60	TS	16.6	993	E	Neutral	260 R/W
Alma	Sep 02, 1962	1	25	TD	36.9	1002	E	Neutral	400 TD
Daisy	Oct 08, 1962	4	65	SS1	17.3			Neutral	260 R/W
Ginny	Oct 29, 1963	8	95	SS2	29.1	958		El Nino	260 R/W
Dora	Sep 14, 1964	6	55	TS	28.5		E	La Nina	260 R/W

Name	Date	S#	MaxWind (kts)	SS Scale	AvgSysSpd (kts)	Pres (mb)	Comment	ENSO	R(km) R/W
Gladys	Sep 24, 1964	9	65	SS1	36.2	982		La Nina	260 R/W
Becky	Jul 03, 1966	2	45	TS	14.4		E	Neutral	400 R
Celia	Jul 21, 1966	3	70	SS1	36.8	998		Neutral	260 R/W
Gladys	Oct 21, 1968	8	65	SS1	30.1			Neutral	260 R/W
Blanche	Aug 12, 1969	2	75	SS1	42.5			El Nino	260 R/W
Gerda	Sep 10, 1969	7	95	SS2	46.2	979		El Nino	400 R
Not Named	Sep 25, 1969	10	65	SS1	20.8	985		El Nino	400 R
Arlene	Jul 07, 1971	1	50	TS	28.5	1000		La Nina	400 R
Beth	Aug 16, 1971	3	65	SS1	14.8	978		La Nina	260 R/W
Carrie	Sep 04, 1972	4	50	TS	10.0		E	El Nino	260 R/W
Alice	Jul 06, 1973	1	65	SS1	31.4	995		La Nina	260 R/W
Gilda	Oct 27, 1973	8	55	TS	29.7		S	La Nina	400 R
Subtrop 3	Aug 14, 1974	3	50	TS	17.9	992	S	Neutral	400 R
Dolly	Sep 05, 1974	7	40	TS	31.7			Neutral	260 R/W
Blanche	Jul 28, 1975	2	70	SS1	33.5	980		La Nina	260 R/W
Evelyn	Oct 15, 1977	5	70	SS1	26.3	996		Neutral	260 R/W
Ella	Sep 04, 1978	6	120	SS4	38.7	956		Neutral	400 R
David	Sep 07, 1979	4	50	TS	34.3	988	E	Neutral	260 R/W
Subtrop 1	Oct 24, 1979	9	65	SS1	38.8	985	S	Neutral	260 R/W
Subtrop 1	Jun 20, 1982	2	60	TS	37.2	988	S	El Nino	260 R/W
Diana	Sep 15, 1984	5	60	TS	38.8	992		Neutral	260 R/W
Ana	Jul 19, 1985	1	60	TS	25.6	996		Neutral	260 R/W
Alberto	Aug 07, 1988	1	35	TS	26.5	1002		La Nina	260 R/W
Chris	Aug 30, 1988	3	25	TD	38.1	1008		La Nina	260 TD
Dean	Aug 08, 1989	4	75	SS1	31.4	975		Neutral	260 R/W
Bertha	Aug 02, 1990	2	70	SS1	19.4	973		Neutral	260 R/W
Lili	Oct 14, 1990	12	45	TS	37.3	995		Neutral	260 R/W
Bob	Aug 20, 1991	2	50	TS	25.2	987		El Nino	400 R
Unnamed	Nov 02, 1991	8	60	TS	21.4	988		El Nino	260 R/W
Allison	Jun 08, 1995	1	50	TS	22.8	984	E	Neutral	260 R/W
Barry	Jul 09, 1995	2	50	TS	22.3	995		Neutral	260 R/W
Felix	Aug 21, 1995	6	50	TS	33.8	988		Neutral	400 R
Luis	Sep 10, 1995	12	80	SS1	39.3	966		Neutral	400 R
Bertha	Jul 14, 1996	2	55	TS	31.0	995		Neutral	260 R/W
Edouard	Sep 03, 1996	5	50	TS	18.6	992	E	Neutral	400 R
Hortense	Sep 14, 1996	8	75	SS1	22.9	960		Neutral	260 R/W
Josephine	Oct 09, 1996	10	45	TS	30.8	980	E	Neutral	260 R/W
Bonnie	Aug 29, 1998	2	45	TS	31.6	1000		La Nina	400 R
Earl	Sep 05, 1998	5	50	TS	43.0	998	E	La Nina	400 R
Floyd	Sep 18, 1999	6	40	TS	20.8	987	E	La Nina	260 R/W
Gordon	Sep 20, 2000	7	30	TD	16.1	1005	E	La Nina	260 TD
Helene	Sep 25, 2000	8	60	TS	54.7	986		La Nina	400 R
Leslie	Oct 08, 2000	12	40	TS	38.5	1004	E	La Nina	400 R
Michael	Oct 19, 2000	13	85	SS2	45.2	965		La Nina	400 R
Subtrop	Oct 29, 2000	15	55	TS	30.1	978	S	La Nina	260 R/W

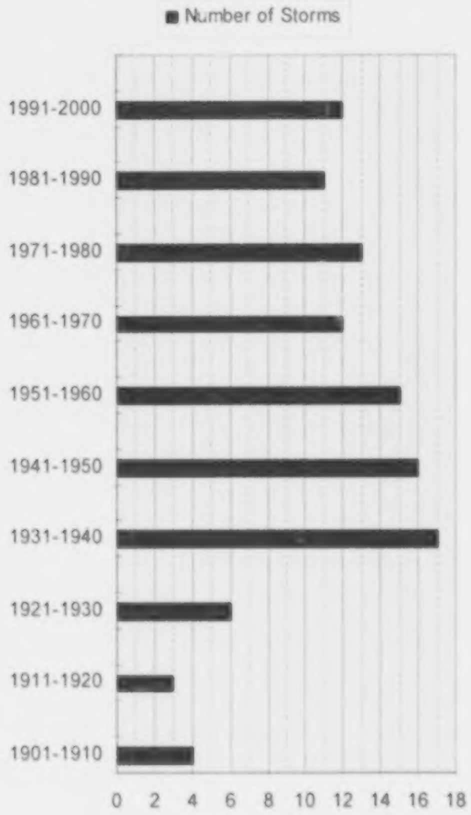
Greenwood



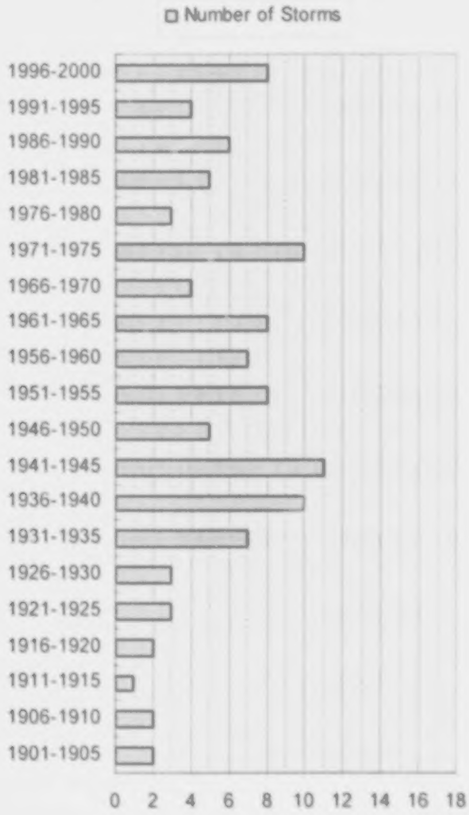


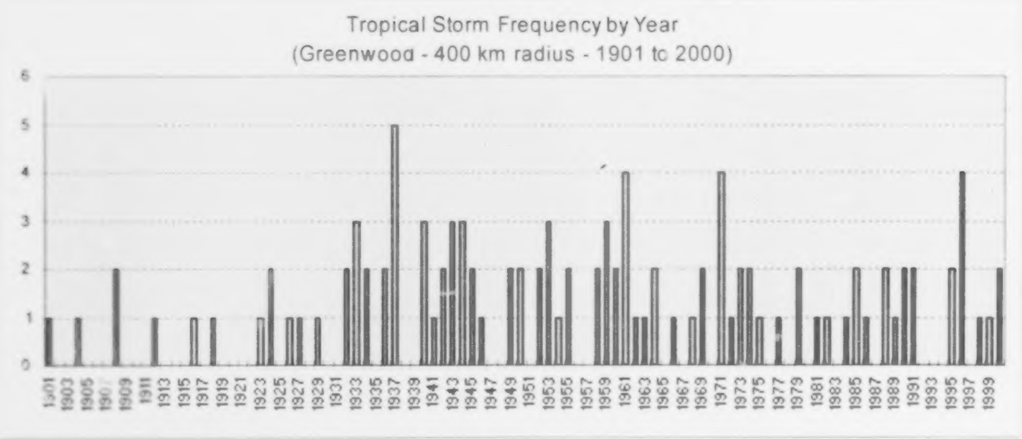
400 km Graphs - Frequency by Time-Periods (1901-2000)

Storm Frequency - Ten Year Periods
(Greenwood - 400 km radius)

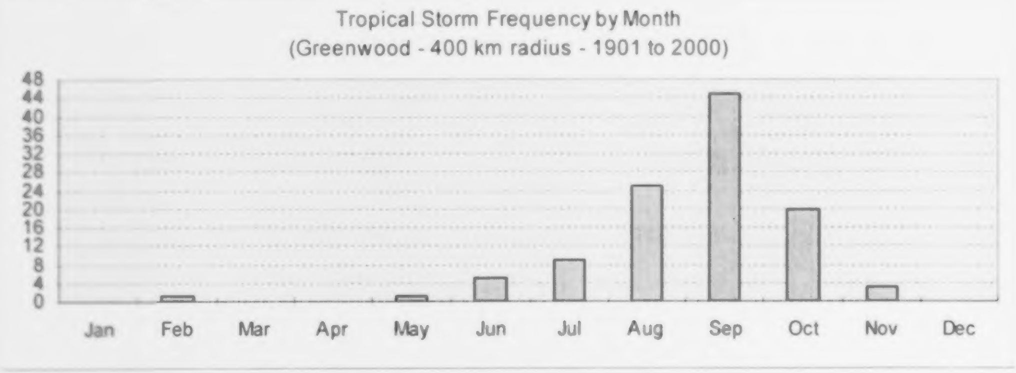


Storm Frequency - Five Year Periods
(Greenwood - 400 km radius)

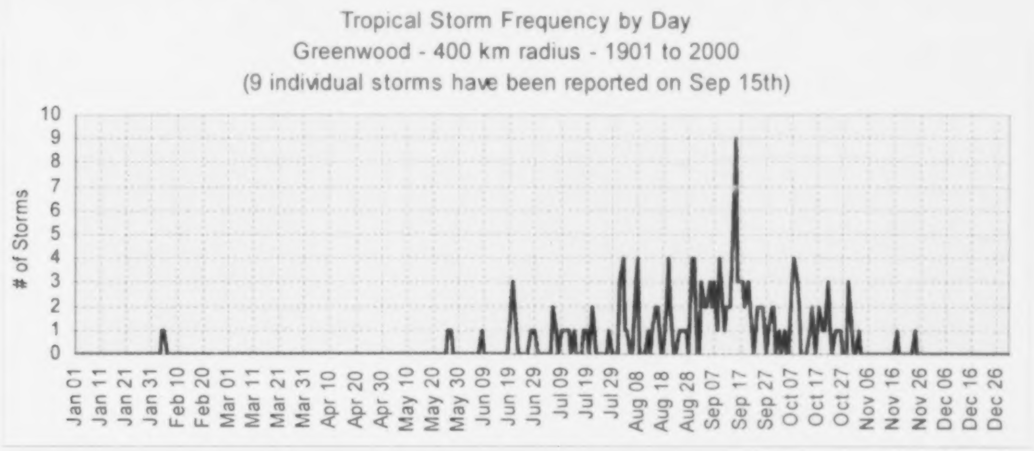




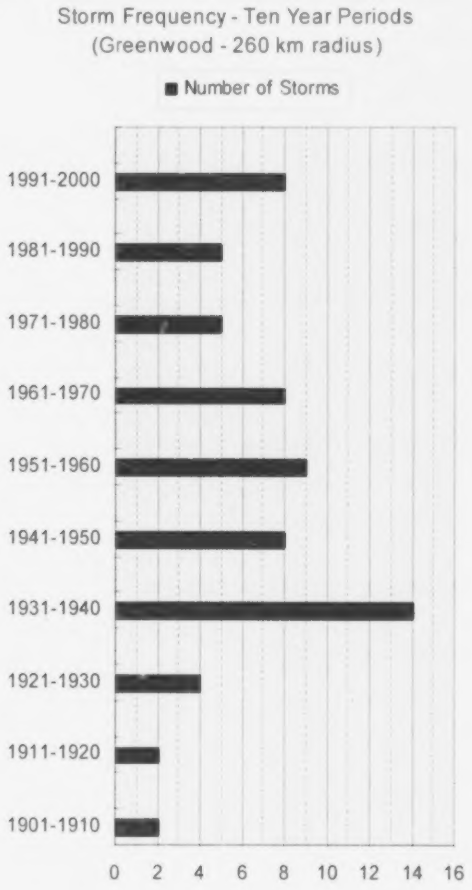
Note: Storms that span months were counted in both months

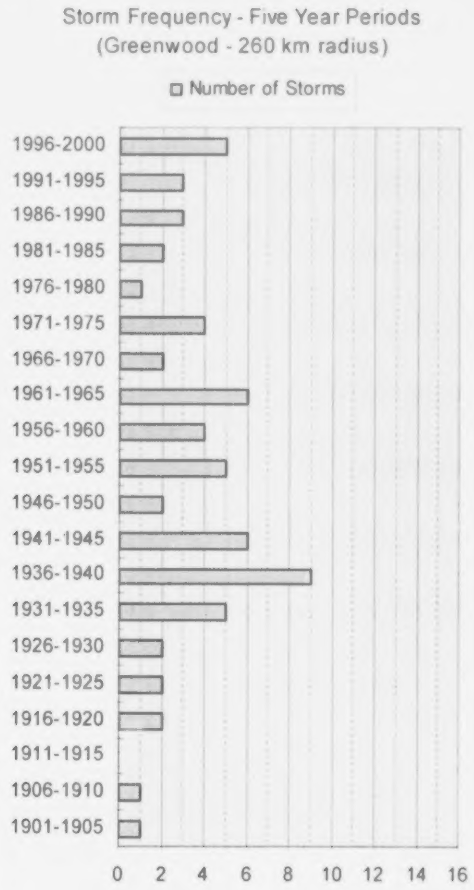


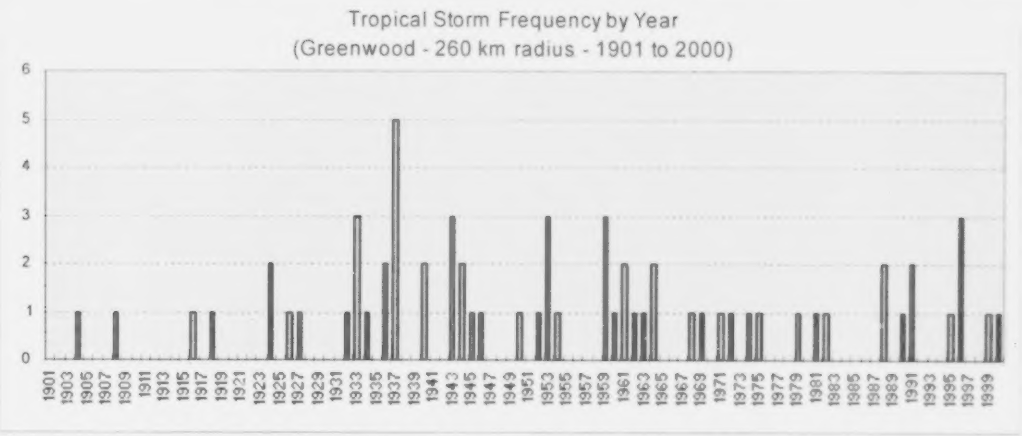
Note: Storms will generally span more than one day. The storm is counted in each day


Tropical Storm Frequency by Day
Greenwood - 400 km radius - 1901 to 2000
(9 individual storms have been reported on Sep 15th)

260 km Graphs - Frequency by Time-Periods (1901-2000)

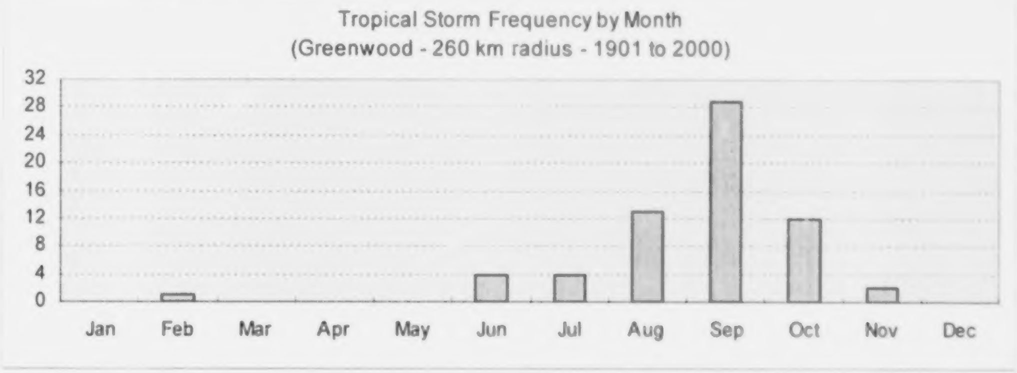

Storm Frequency - Ten Year Periods
(Greenwood - 260 km radius)


Storm Frequency - Five Year Periods
(Greenwood - 260 km radius)



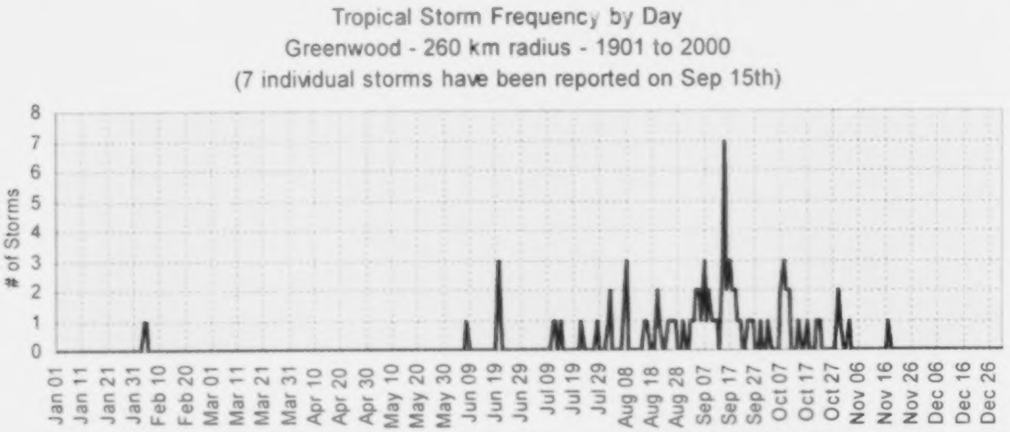
Tropical Storm Frequency by Year
(Greenwood - 260 km radius - 1901 to 2000)

Note: Storms that span months were counted in both months



Tropical Storm Frequency by Month
(Greenwood - 260 km radius - 1901 to 2000)

Note: Storms will generally span more than one day. The storm is counted in each day



Greenwood – Summary Statistics 260 km Radius (gale swath)

100 Yr	**TD**	**TS**	**G**	**S**	**S1**	**S2**	**S3**	**S4**	**S5**	**H**	**<H**	**ALL**	**Sys-Spd**
#	4	35	16	19	20	5	1	0	0	26	39	65	27.8
Return	25	2.9	6.3	5.3	5	20	100	NA	NA	3.8	2.6	1.5	
50 Yr	**TD**	**TS**	**G**	**S**	**S1**	**S2**	**S3**	**S4**	**S5**	**H**	**<H**	**ALL**	**Sys-Spd**
#	3	21	7	14	9	1	1	0	0	11	24	35	28.3
Return	16.7	2.4	7.1	3.6	5.6	50	50	NA	NA	4.5	2.1	1.4	

Greenwood – Summary Statistics 400 km Radius (trace precipitation swath)

100 Yr	**TD**	**TS**	**G**	**S**	**S1**	**S2**	**S3**	**S4**	**S5**	**H**	**<H**	**ALL**	**Sys-Spd**
#	10	50	24	26	38	9	2	0	0	49	60	109	26.9
Return	10	2	4.2	3.8	2.6	11.1	50	NA	NA	2	1.7	0.9	
50 Yr	**TD**	**TS**	**G**	**S**	**S1**	**S2**	**S3**	**S4**	**S5**	**H**	**<H**	**ALL**	**Sys-Spd**
#	5	30	10	20	23	4	1	0	0	28	35	63	27.5
Return	10	1.7	5	2.5	2.2	12.5	50	NA	NA	1.8	1.4	0.8	

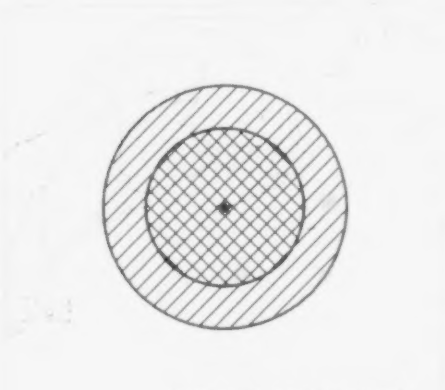
Greenwood – Storms That Tracked Within 400 km of Site (R) and within 260 km of the Site (R/W)

Name	Date	S#	MaxWind (kts)	SS Scale	AvgSysSpd (kts)	Pres (mb)	Comment	ENSO	R(km) R/W
Not Named	Sep 30, 1901	8	30	TD	28.2		E	Neutral	400 TD
Not Named	Sep 15, 1904	2	65	SS1	59.8		E	El Nino	260 R/W
Not Named	Aug 02, 1908	2	85	SS2	22.9			La Nina	260 R/W
Not Named	Sep 18, 1908	4	70	SS1	12.4			La Nina	400 R
Not Named	Nov 24, 1912	6	60	TS	36.8		E	Neutral	400 R
Not Named	Jul 21, 1916	2	65	SS1	27.1			La Nina	260 R/W
Not Named	Sep 06, 1918	4	65	SS1	20.3			El Nino	260 R/W
Not Named	Oct 26, 1923	4	25	TD	23.5		E	Neutral	400 TD
Not Named	Aug 26, 1924	2	90	SS2	35.6			La Nina	260 R/W
Not Named	Sep 04, 1924	3	70	SS1	25.9		E	La Nina	260 R/W
Not Named	Aug 07, 1926	2	80	SS1	24.1			Neutral	260 R/W
Not Named	Aug 24, 1927	1	90	SS2	53.1		E	Neutral	260 R/W
Not Named	Oct 04, 1929	2	25	TD	62.0		E	El Nino	400 TD
Not Named	Sep 09, 1932	4	90	SS2	15.8			Neutral	400 R

Name	Date	S#	MaxWind (kts)	SS Scale	AvgSysSpd (kts)	Pres (mb)	Comment	ENSO	R(km) R/W
Not Named	Sep 17, 1932	5	35	TS	25.0		E	Neutral	260 R/W
Not Named	Sep 18, 1933	13	65	SS1	21.2		E	Neutral	260 R/W
Not Named	Oct 07, 1933	18	100	SS3	18.8			Neutral	260 R/W
Not Named	Oct 29, 1933	20	60	TS	14.0		E	Neutral	260 R/W
Not Named	Jun 20, 1934	2	40	TS	21.3		E	Neutral	260 R/W
Not Named	Sep 09, 1934	6	40	TS	25.5		E	Neutral	400 R
Not Named	Sep 19, 1936	13	80	SS1	32.0			Neutral	260 R/W
Not Named	Sep 24, 1936	15	75	SS1	23.0			Neutral	260 R/W
Not Named	Aug 01, 1937	1	50	TS	14.1			Neutral	260 R/W
Not Named	Aug 07, 1937	2	45	TS	13.7			Neutral	260 R/W
Not Named	Sep 14, 1937	4	60	TS	26.7			Neutral	260 R/W
Not Named	Sep 26, 1937	7	80	SS1	22.8		E	Neutral	260 R/W
Not Named	Sep 29, 1937	8	35	TS	23.8		E	Neutral	260 R/W
Not Named	May 26, 1940	1	30	TD	15.9			El Nino	400 TD
Not Named	Sep 02, 1940	4	70	SS1	21.2			El Nino	260 R/W
Not Named	Sep 16, 1940	5	70	SS1	18.5			El Nino	260 R/W
Not Named	Sep 25, 1941	3	35	TS	19.4			Neutral	400 R
Not Named	Sep 23, 1942	5	35	TS	18.0		E	La Nina	400 R
Not Named	Oct 18, 1942	9	35	TS	37.9			La Nina	400 R
Not Named	Sep 09, 1943	4	75	SS1	26.4			Neutral	260 R/W
Not Named	Sep 15, 1943	5	40	TS	23.0		E	Neutral	260 R/W
Not Named	Oct 17, 1943	9	40	TS	38.3		E	Neutral	260 R/W
Not Named	Aug 04, 1944	3	35	TS	10.6			La Nina	400 R
Not Named	Sep 15, 1944	7	65	SS1	36.8	966		La Nina	260 R/W
Not Named	Oct 21, 1944	11	45	TS	32.2		E	La Nina	260 R/W
Not Named	Jun 27, 1945	1	55	TS	12.5			Neutral	400 R
Not Named	Sep 19, 1945	9	25	TD	33.3		E	Neutral	260 TD
Not Named	Sep 15, 1946	4	65	SS1	27.1			Neutral	260 R/W
Not Named	Aug 29, 1949	2	35	TS	38.3		E	La Nina	400 R
Not Named	Oct 19, 1949	11	45	TS	14.5		E	La Nina	400 R
Able	Aug 21, 1950	1	90	SS2	27.8			Neutral	260 R/W
Dog	Sep 12, 1950	4	60	TS	12.7		E	Neutral	400 R
Not Named	Feb 04, 1952	1	50	TS	30.9		E	Neutral	260 R/W
Able	Sep 02, 1952	2	25	TD	10.0			Neutral	400 TD
Barbara	Aug 15, 1953	2	75	SS1	34.0			Neutral	260 R/W
Carol	Sep 07, 1953	4	70	SS1	32.9			Neutral	260 R/W
Not Named	Oct 07, 1953	10	60	TS	18.5		E	Neutral	260 R/W
Edna	Sep 11, 1954	5	80	SS1	45.8			La Nina	260 R/W
Diane	Aug 20, 1955	3	35	TS	19.9			La Nina	400 R
Ione	Sep 21, 1955	9	75	SS1	42.3			La Nina	400 R
Daisy	Aug 29, 1958	4	90	SS2	30.4	982		Neutral	400 R
Helene	Sep 29, 1958	8	70	SS1	45.2	963		Neutral	400 R
Not Named	Jun 19, 1959	3	70	SS1	17.0		E	Neutral	260 R/W
Cindy	Jul 11, 1959	4	50	TS	30.0			Neutral	260 R/W
Gracie	Oct 02, 1959	8	25	TD	30.3		E	Neutral	260 TD
Cleo	Aug 20, 1960	4	80	SS1	21.1			Neutral	260 R/W
Donna	Sep 13, 1960	5	75	SS1	38.8			Neutral	400 R
Esther	Sep 26, 1961	5	35	TS	20.6			Neutral	400 R
Not Named	Sep 15, 1961	6	35	TS	60.6			Neutral	260 R/W
Frances	Oct 08, 1961	7	70	SS1	15.5			Neutral	260 R/W
Gerda	Oct 20, 1961	8	60	TS	16.4			Neutral	400 R
Daisy	Oct 07, 1962	4	70	SS1	16.1	975		Neutral	260 R/W
Ginny	Oct 29, 1963	8	95	SS2	29.1	958		El Nino	260 R/W
Dora	Sep 14, 1964	6	55	TS	28.5		E	La Nina	260 R/W
Gladys	Sep 24, 1964	9	65	SS1	36.2	982		La Nina	260 R/W

Name	Date	S#	MaxWind (kts)	SS Scale	AvgSysSpd (kts)	Pres (mb)	Comment	ENSO	R(km) R/W
Celia	Jul 21, 1966	3	70	SS1	36.2	998		Neutral	400 R
Gladys	Oct 21, 1968	8	65	SS1	30.1			Neutral	260 R/W
Blanche	Aug 12, 1969	2	75	SS1	41.2			El Nino	400 R
Gerda	Sep 09, 1969	7	110	SS3	44.6	979		El Nino	260 R/W
Arlene	Jul 06, 1971	1	55	TS	26.6	1000		La Nina	400 R
Beth	Aug 15, 1971	3	75	SS1	14.4			La Nina	260 R/W
Doria	Aug 29, 1971	5	35	TS	24.2		E	La Nina	400 R
Heidi	Sep 14, 1971	9	50	TS	19.5			La Nina	400 R
Carrie	Sep 04, 1972	4	55	TS	12.7	992	E	El Nino	260 R/W
Alice	Jul 06, 1973	1	65	SS1	28.6	995		La Nina	400 R
Alfa	Aug 01, 1973	2	25	TD	13.3	1007	S	La Nina	400 TD
Subtrop 3	Aug 14, 1974	3	50	TS	14.6	992	S	Neutral	400 R
Dolly	Sep 05, 1974	7	40	TS	31.7			Neutral	260 R/W
Blanche	Jul 28, 1975	2	70	SS1	33.5	980		La Nina	260 R/W
Evelyn	Oct 15, 1977	5	70	SS1	29.1	996		Neutral	400 R
David	Sep 07, 1979	4	50	TS	33.6	988	E	Neutral	260 R/W
Subtrop 1	Oct 24, 1979	9	65	SS1	37.5	985	S	Neutral	400 R
Subtrop 3	Nov 17, 1981	12	50	TS	17.8	985	S	Neutral	260 R/W
Subtrop 1	Jun 20, 1982	2	60	TS	39.9	992	S	El Nino	260 R/W
Diana	Sep 15, 1984	5	60	TS	38.8	992		Neutral	400 R
Ana	Jul 19, 1985	1	60	TS	24.4	996		Neutral	400 R
Gloria	Sep 28, 1985	7	50	TS	30.1	986	E	Neutral	400 R
Charley	Aug 19, 1986	3	45	TS	12.5	1002		El Nino	400 R
Alberto	Aug 07, 1988	1	35	TS	24.6	1002		La Nina	260 R/W
Chris	Aug 30, 1988	3	25	TD	38.1	1008		La Nina	260 TD
Dean	Aug 08, 1989	4	75	SS1	29.8	975		Neutral	400 R
Bertha	Aug 02, 1990	2	70	SS1	17.9	973		Neutral	400 R
Lili	Oct 14, 1990	12	50	TS	35.0	995		Neutral	260 R/W
Bob	Aug 19, 1991	2	85	SS2	24.7	964		El Nino	260 R/W
Unnamed	Nov 02, 1991	8	65	SS1	23.9	981		El Nino	260 R/W
Allison	Jun 08, 1995	1	50	TS	21.6	982	E	Neutral	260 R/W
Barry	Jul 09, 1995	2	50	TS	22.3	995		Neutral	400 R
Bertha	Jul 14, 1996	2	60	TS	30.5	994		Neutral	260 R/W
Edouard	Sep 02, 1996	5	65	SS1	12.2	972		Neutral	400 R
Hortense	Sep 14, 1996	8	85	SS2	25.2	960		Neutral	260 R/W
Josephine	Oct 09, 1996	10	45	TS	29.9	980	E	Neutral	260 R/W
Bonnie	Aug 29, 1998	2	45	TS	30.0	999		La Nina	400 R
Floyd	Sep 17, 1999	6	45	TS	18.2	984	E	La Nina	260 R/W
Gordon	Sep 20, 2000	7	30	TD	16.7	1005	E	La Nina	260 TD
Subtrop	Oct 29, 2000	15	55	TS	30.1	978	S	La Nina	400 R

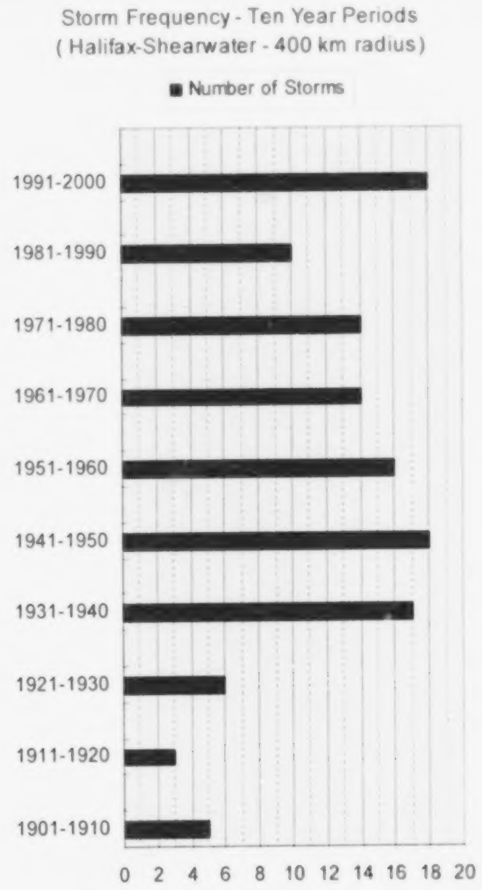
Halifax (Shearwater)

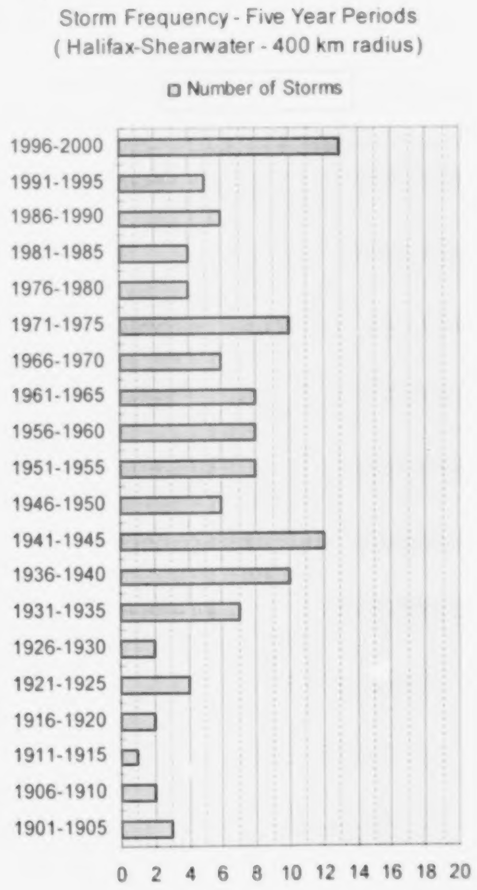


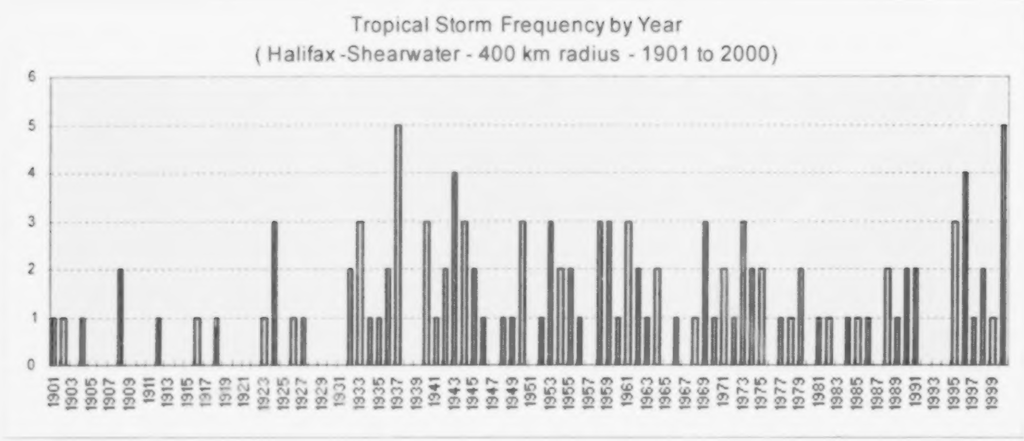
Halifax (Shearwater), NS

Halifax (Shearwater), NS

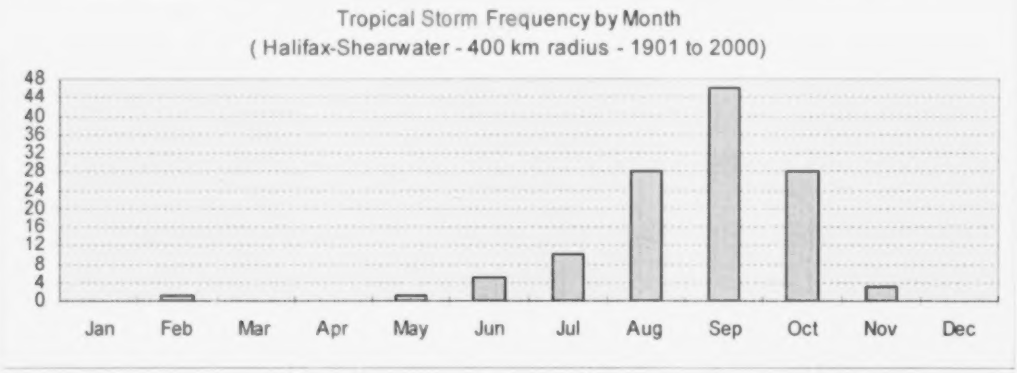
400 km Graphs - Frequency by Time-Periods (1901-2000)



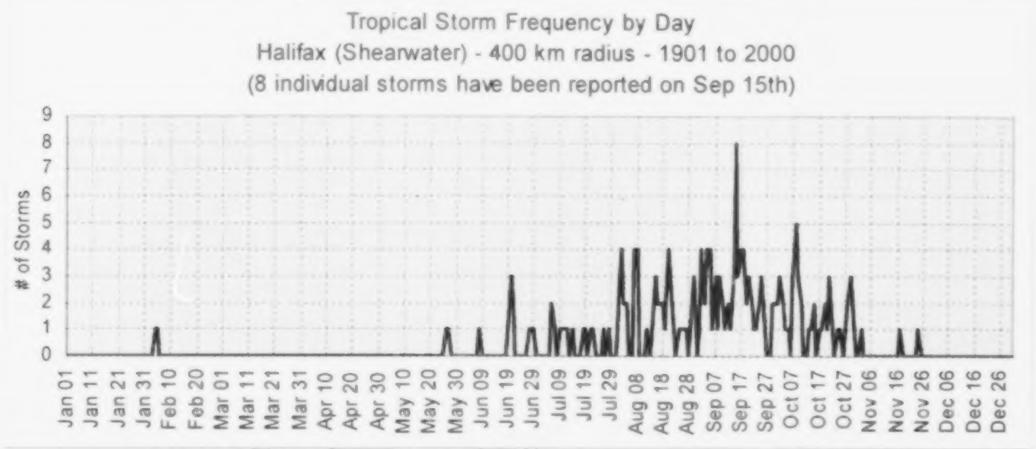




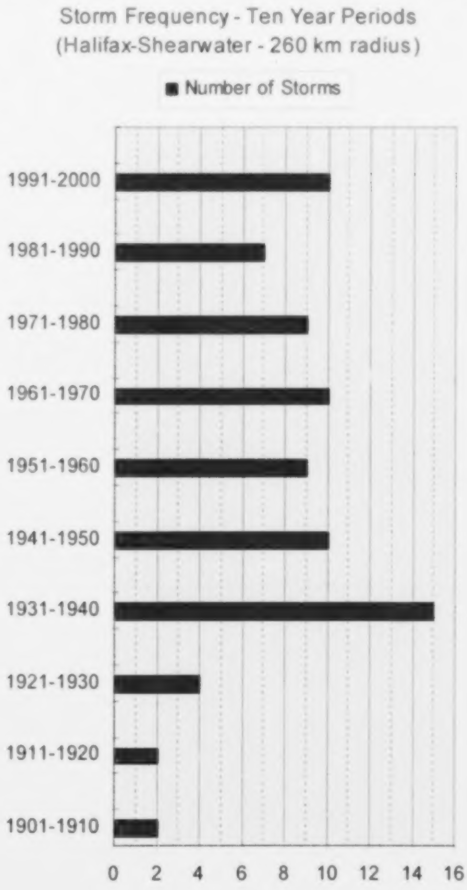
Note: Storms that span months were counted in both months

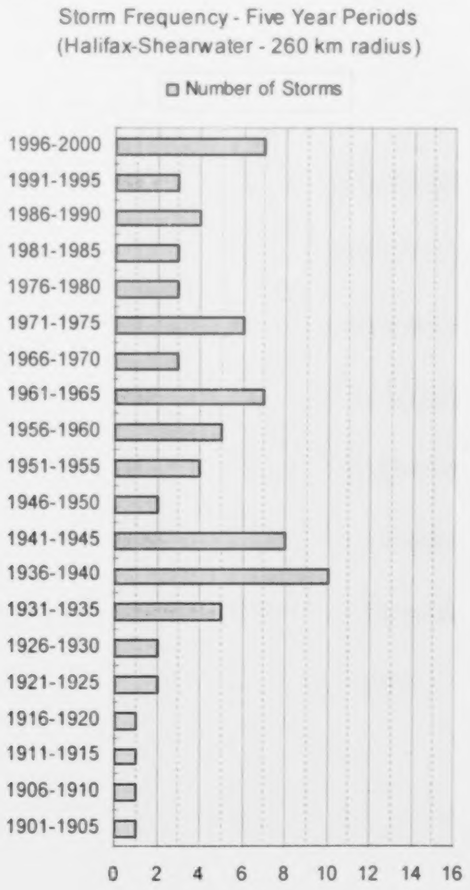


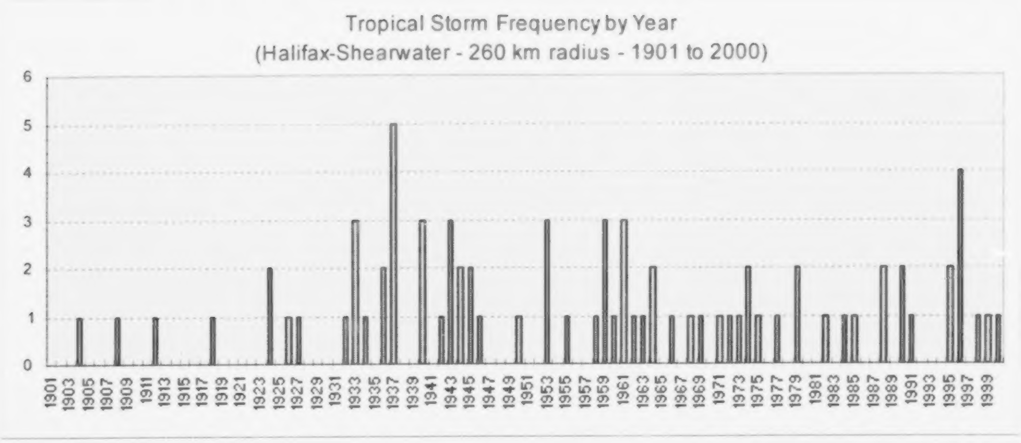
Note: Storms will generally span more than one day. The storm is counted in each day


Tropical Storm Frequency by Day
Halifax (Shearwater) - 400 km radius - 1901 to 2000
(8 individual storms have been reported on Sep 15th)

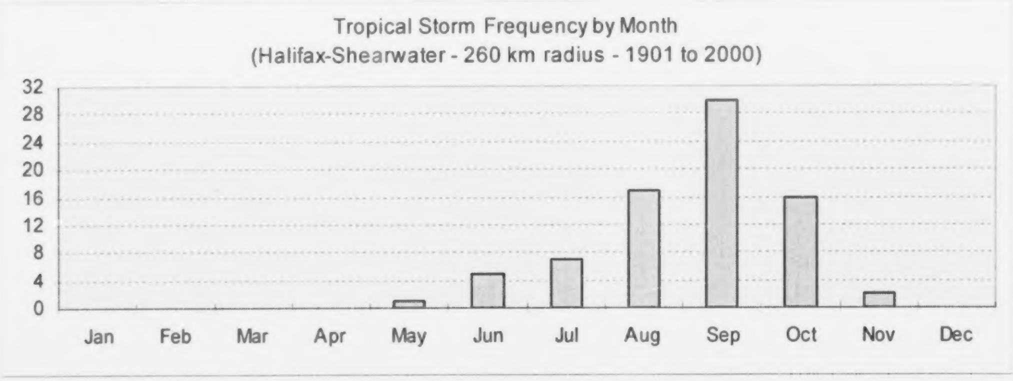
260 km Graphs - Frequency by Time-Periods (1901-2000)


Storm Frequency - Ten Year Periods
(Halifax-Shearwater - 260 km radius)

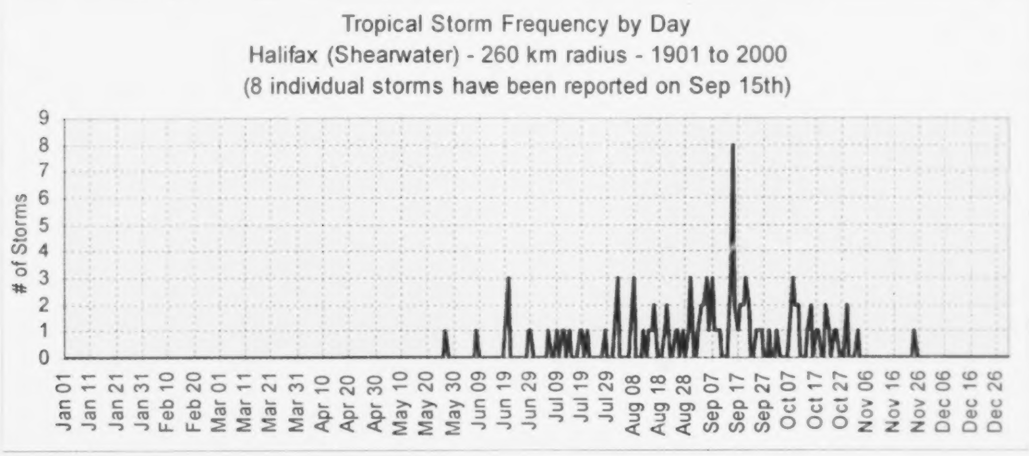

Storm Frequency - Five Year Periods
(Halifax-Shearwater - 260 km radius)


Tropical Storm Frequency by Year
(Halifax-Shearwater - 260 km radius - 1901 to 2000)

Note: Storms that span months were counted in both months


Tropical Storm Frequency by Month
(Halifax-Shearwater - 260 km radius - 1901 to 2000)

Note: Storms will generally span more than one day. The storm is counted in each day



Halifax – Summary Statistics 260 km Radius (gale swath)

100 Yr	**TD**	**TS**	**G**	**S**	**S1**	**S2**	**S3**	**S4**	**S5**	**H**	**<H**	**ALL**	**Sys-Spd**
#	5	40	18	22	27	6	0	0	0	33	45	78	27.7
Return	20	2.5	5.6	4.5	3.7	16.7	NA	NA	NA	3	2.2	1.3	
50 Yr	**TD**	**TS**	**G**	**S**	**S1**	**S2**	**S3**	**S4**	**S5**	**H**	**<H**	**ALL**	**Sys-Spd**
#	3	26	9	17	14	2	0	0	0	16	29	45	28.4
Return	16.7	1.9	5.6	2.9	3.6	25	NA	NA	NA	3.1	1.7	1.1	

Halifax – Summary Statistics 400 km Radius (trace precipitation swath)

100 Yr	**TD**	**TS**	**G**	**S**	**S1**	**S2**	**S3**	**S4**	**S5**	**H**	**<H**	**ALL**	**Sys-Spd**
#	9	59	25	34	39	10	3	1	0	53	68	121	28.1
Return	11.1	1.7	4	2.9	2.6	10	33.3	100	NA	1.9	1.5	0.8	
50 Yr	**TD**	**TS**	**G**	**S**	**S1**	**S2**	**S3**	**S4**	**S5**	**H**	**<H**	**ALL**	**Sys-Spd**
#	6	36	10	26	23	4	2	1	0	30	42	72	30.1
Return	8.3	1.4	5	1.9	2.2	12.5	25	50	NA	1.7	1.2	0.7	

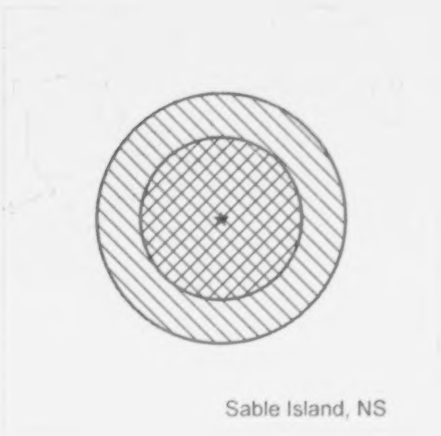
Halifax – Storms That Tracked Within 400 km of Site (R) and within 260 km of the Site (R/W)

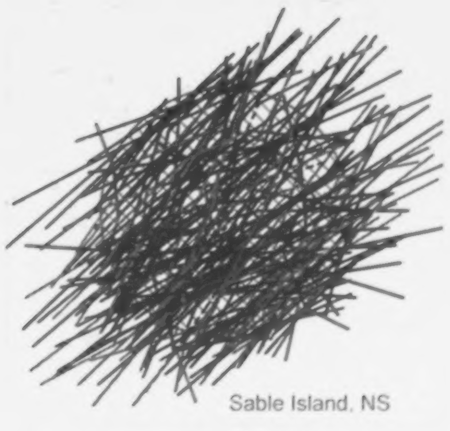
Name	**Date**	**S#**	**MaxWind (kts)**	**SS Scale**	**AvgSysSpd (kts)**	**Pres (mb)**	**Comment**	**ENSO**	**R(km) R/W**
Not Named	Sep 30, 1901	8	30	TD	24.4		E	Neutral	400 TD
Not Named	Oct 13, 1902	4	40	TS	39.8		E	El Nino	400 R
Not Named	Sep 15, 1904	2	65	SS1	59.8		E	El Nino	260 R/W
Not Named	Aug 02, 1908	2	85	SS2	22.9			La Nina	260 R/W
Not Named	Sep 17, 1908	4	70	SS1	17.4			La Nina	400 R
Not Named	Nov 24, 1912	6	60	TS	36.8		E	Neutral	260 R/W
Not Named	Jul 22, 1916	2	55	TS	28.5			La Nina	400 R
Not Named	Sep 06, 1918	4	65	SS1	20.3			El Nino	260 R/W
Not Named	Oct 01, 1923	2	85	SS2	13.5		E	Neutral	400 R
Not Named	Aug 26, 1924	2	90	SS2	35.6			La Nina	260 R/W
Not Named	Sep 04, 1924	3	70	SS1	25.9		E	La Nina	260 R/W
Not Named	Sep 18, 1924	4	40	TS	27.5		E	La Nina	400 R
Not Named	Aug 07, 1926	2	80	SS1	24.1			Neutral	260 R/W
Not Named	Aug 24, 1927	1	90	SS2	53.1		E	Neutral	260 R/W

Name	Date	S#	MaxWind (kts)	SS Scale	AvgSysSpd (kts)	Pres (mb)	Comment	ENSO	R(km) R/W
Not Named	Sep 09, 1932	4	90	SS2	14.8			Neutral	260 R/W
Not Named	Sep 17, 1932	5	35	TS	25.0		E	Neutral	400 R
Not Named	Sep 18, 1933	13	65	SS1	21.2		E	Neutral	260 R/W
Not Named	Oct 07, 1933	18	100	SS3	18.8			Neutral	260 R/W
Not Named	Oct 28, 1933	20	60	TS	15.7			Neutral	260 R/W
Not Named	Jun 20, 1934	2	40	TS	21.3		E	Neutral	260 R/W
Not Named	Oct 01, 1935	4	75	SS1	28.8		E	Neutral	400 R
Not Named	Sep 19, 1936	13	80	SS1	32.0			Neutral	260 R/W
Not Named	Sep 24, 1936	15	75	SS1	23.0			Neutral	260 R/W
Not Named	Aug 01, 1937	1	50	TS	14.1			Neutral	260 R/W
Not Named	Aug 07, 1937	2	45	TS	13.7			Neutral	260 R/W
Not Named	Sep 14, 1937	4	60	TS	26.7			Neutral	260 R/W
Not Named	Sep 26, 1937	7	80	SS1	22.8		E	Neutral	260 R/W
Not Named	Sep 29, 1937	8	35	TS	23.8		E	Neutral	260 R/W
Not Named	May 26, 1940	1	30	TD	14.3			El Nino	260 TD
Not Named	Sep 02, 1940	4	70	SS1	21.2			El Nino	260 R/W
Not Named	Sep 16, 1940	5	70	SS1	17.0			El Nino	260 R/W
Not Named	Sep 25, 1941	3	35	TS	19.4			Neutral	400 R
Not Named	Sep 22, 1942	5	35	TS	13.1		E	La Nina	400 R
Not Named	Oct 18, 1942	9	35	TS	37.9			La Nina	260 R/W
Not Named	Sep 09, 1943	4	75	SS1	26.4			Neutral	260 R/W
Not Named	Sep 15, 1943	5	40	TS	23.7		E	Neutral	260 R/W
Not Named	Oct 03, 1943	8	45	TS	24.0			Neutral	400 R
Not Named	Oct 17, 1943	9	40	TS	38.3		E	Neutral	260 R/W
Not Named	Aug 04, 1944	3	35	TS	10.6			La Nina	400 R
Not Named	Sep 15, 1944	7	65	SS1	36.8	966		La Nina	260 R/W
Not Named	Oct 21, 1944	11	45	TS	31.7		E	La Nina	260 R/W
Not Named	Jun 27, 1945	1	55	TS	12.5			Neutral	260 R/W
Not Named	Sep 19, 1945	9	25	TD	35.1		E	Neutral	260 TD
Not Named	Sep 15, 1946	4	65	SS1	27.1			Neutral	260 R/W
Not Named	Sep 01, 1948	3	60	TS	24.2		E	Neutral	400 R
Not Named	Oct 19, 1949	11	45	TS	12.3		E	La Nina	400 R
Able	Aug 21, 1950	1	65	SS1	26.8			Neutral	260 R/W
Dog	Sep 12, 1950	4	60	TS	13.1		E	Neutral	400 R
George	Oct 04, 1950	7	95	SS2	35.0			Neutral	400 R
Not Named	Feb 04, 1952	1	50	TS	30.9		E	Neutral	400 R
Barbara	Aug 15, 1953	2	75	SS1	34.0			Neutral	260 R/W
Carol	Sep 07, 1953	4	70	SS1	32.9			Neutral	260 R/W
Not Named	Oct 07, 1953	10	60	TS	20.8		E	Neutral	260 R/W
Dolly	Sep 02, 1954	4	70	SS1	37.0			La Nina	400 R
Edna	Sep 11, 1954	5	80	SS1	45.8			La Nina	400 R
Diane	Aug 20, 1955	3	35	TS	22.0			La Nina	400 R
Ione	Sep 21, 1955	9	75	SS1	35.5			La Nina	260 R/W
Betsy	Aug 18, 1956	3	50	TS	24.2			La Nina	400 R
Becky	Aug 17, 1958	2	25	TD	39.8		E	Neutral	400 TD
Daisy	Aug 29, 1958	4	90	SS2	31.4	982		Neutral	260 R/W
Helene	Sep 29, 1958	8	85	SS2	40.9	959		Neutral	400 R
Not Named	Jun 19, 1959	3	70	SS1	19.9		E	Neutral	260 R/W
Cindy	Jul 11, 1959	4	50	TS	29.8			Neutral	260 R/W
Gracie	Oct 02, 1959	8	25	TD	30.3		E	Neutral	260 TD
Cleo	Aug 20, 1960	4	80	SS1	21.1			Neutral	260 R/W
Not Named	Sep 15, 1961	6	35	TS	60.6			Neutral	260 R/W
Frances	Oct 08, 1961	7	70	SS1	15.5			Neutral	260 R/W
Gerda	Oct 20, 1961	8	60	TS	16.3			Neutral	260 R/W
Alma	Sep 02, 1962	1	25	TD	36.9	1002	E	Neutral	400 TD

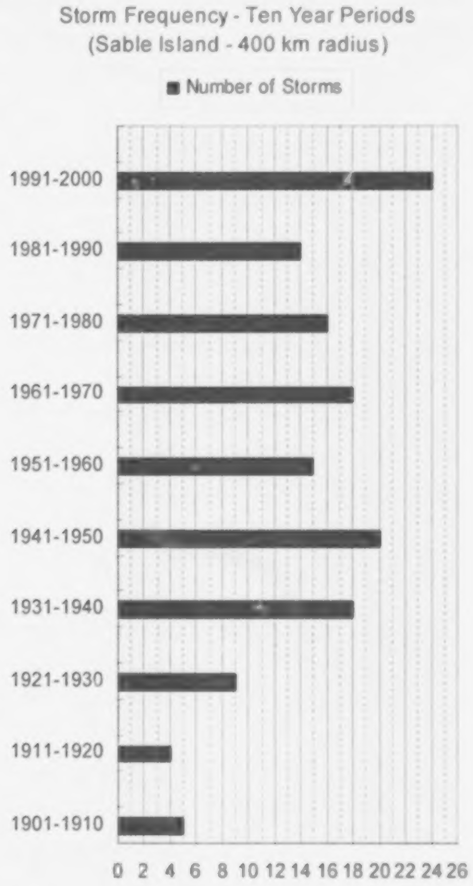
Name	Date	S#	MaxWind (kts)	SS Scale	AvgSysSpd (kts)	Pres (mb)	Comment	ENSO	R(km) R/W
Daisy	Oct 07, 1962	4	70	SS1	16.1	975		Neutral	260 R/W
Ginny	Oct 29, 1963	8	95	SS2	29.1	958		El Nino	260 R/W
Dora	Sep 14, 1964	6	55	TS	28.5		E	La Nina	260 R/W
Gladys	Sep 24, 1964	9	65	SS1	36.2	982		La Nina	260 R/W
Celia	Jul 21, 1966	3	70	SS1	36.8	998		Neutral	260 R/W
Gladys	Oct 21, 1968	8	65	SS1	30.1			Neutral	260 R/W
Anna	Aug 03, 1969	1	55	TS	30.9	1002		El Nino	400 R
Blanche	Aug 12, 1969	2	75	SS1	41.2			El Nino	260 R/W
Gerda	Sep 09, 1969	7	110	SS3	44.6	979		El Nino	400 R
Not Named	Aug 18, 1970	4	55	TS	58.3	992		La Nina	400 R
Arlene	Jul 06, 1971	1	55	TS	27.1	1000		La Nina	400 R
Beth	Aug 15, 1971	3	75	SS1	15.0			La Nina	260 R/W
Carrie	Sep 04, 1972	4	50	TS	12.2		E	El Nino	260 R/W
Alice	Jul 06, 1973	1	65	SS1	28.6	995		La Nina	260 R/W
Alfa	Aug 01, 1973	2	25	TD	14.3	1008	S	La Nina	400 TD
Gilda	Oct 27, 1973	8	55	TS	29.8		S	La Nina	400 R
Subtrop 3	Aug 14, 1974	3	50	TS	14.6	992	S	Neutral	260 R/W
Dolly	Sep 05, 1974	7	40	TS	31.7			Neutral	260 R/W
Blanche	Jul 28, 1975	2	70	SS1	33.5	980		La Nina	260 R/W
Gladys	Oct 03, 1975	7	110	SS3	50.6	950		La Nina	400 R
Evelyn	Oct 15, 1977	5	70	SS1	29.1	996		Neutral	260 R/W
Ella	Sep 04, 1978	6	120	SS4	38.7	956		Neutral	400 R
David	Sep 07, 1979	4	50	TS	34.3	988	E	Neutral	260 R/W
Subtrop 1	Oct 24, 1979	9	65	SS1	37.5	985	S	Neutral	260 R/W
Subtrop 3	Nov 17, 1981	12	50	TS	17.8	985	S	Neutral	400 R
Subtrop 1	Jun 20, 1982	2	60	TS	39.9	992	S	El Nino	260 R/W
Diana	Sep 15, 1984	5	60	TS	38.8	992		Neutral	260 R/W
Ana	Jul 19, 1985	1	60	TS	24.4	996		Neutral	260 R/W
Charley	Aug 19, 1986	3	45	TS	14.1	1002		El Nino	400 R
Alberto	Aug 07, 1988	1	35	TS	24.6	1002		La Nina	260 R/W
Chris	Aug 30, 1988	3	25	TD	38.1	1008		La Nina	260 TD
Dean	Aug 07, 1989	4	80	SS1	29.2	972		Neutral	400 R
Bertha	Aug 02, 1990	2	70	SS1	17.7	973		Neutral	260 R/W
Lili	Oct 14, 1990	12	50	TS	35.0	995		Neutral	260 R/W
Bob	Aug 20, 1991	2	60	TS	23.7	977		El Nino	400 R
Unnamed	Nov 02, 1991	8	65	SS1	21.6	981		El Nino	260 R/W
Allison	Jun 08, 1995	1	50	TS	21.6	982	E	Neutral	260 R/W
Barry	Jul 09, 1995	2	50	TS	22.3	995		Neutral	260 R/W
Felix	Aug 21, 1995	6	50	TS	33.8	988		Neutral	400 R
Bertha	Jul 14, 1996	2	55	TS	31.0	995		Neutral	260 R/W
Edouard	Sep 02, 1996	5	65	SS1	13.0	972		Neutral	260 R/W
Hortense	Sep 14, 1996	8	85	SS2	25.9	960		Neutral	260 R/W
Josephine	Oct 09, 1996	10	45	TS	30.8	980	E	Neutral	260 R/W
Danny	Jul 26, 1997	5	40	TS	20.7	1004	E	El Nino	400 R
Bonnie	Aug 29, 1998	2	45	TS	30.0	999		La Nina	260 R/W
Earl	Sep 05, 1998	5	50	TS	43.0	998	E	La Nina	400 R
Floyd	Sep 17, 1999	6	45	TS	18.9	985	E	La Nina	260 R/W
Gordon	Sep 20, 2000	7	30	TD	16.7	1005	E	La Nina	260 TD
Helene	Sep 25, 2000	8	60	TS	46.3	986		La Nina	400 R
Leslie	Oct 08, 2000	12	40	TS	39.7	1004	E	La Nina	400 R
Michael	Oct 19, 2000	13	75	SS1	47.9	979		La Nina	400 R
Subtrop	Oct 29, 2000	15	55	TS	30.1	978	S	La Nina	400 R

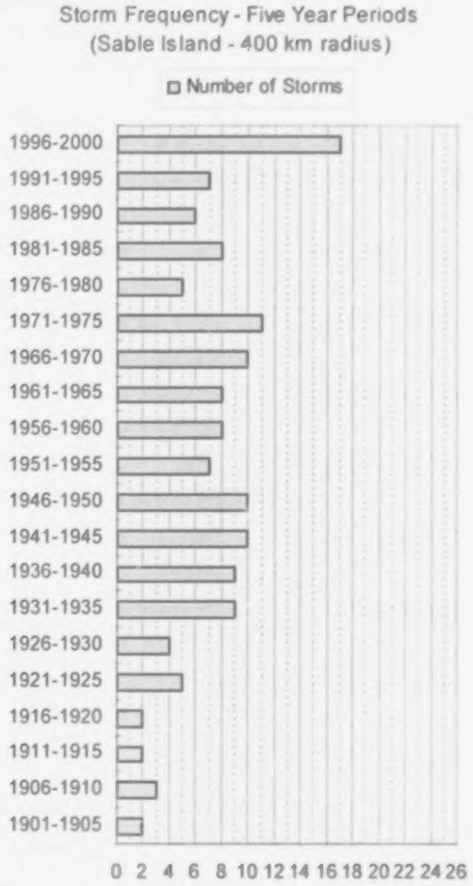
Sable Island

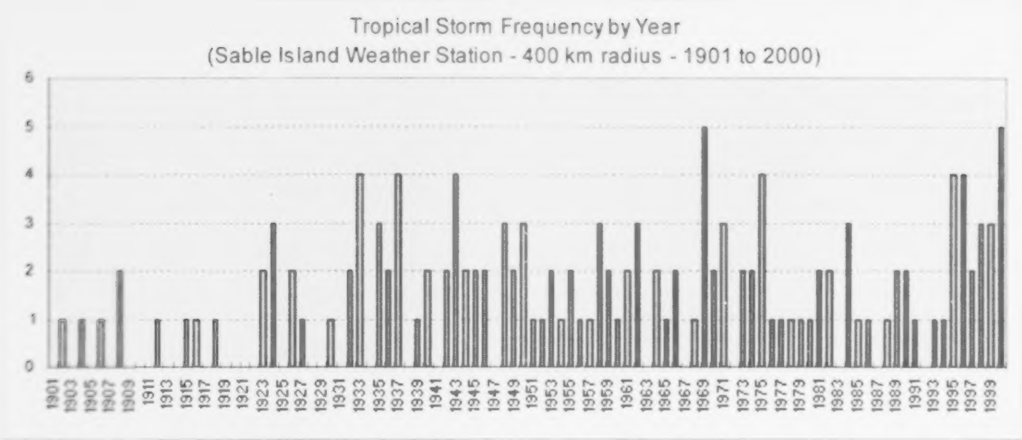

Sable Island, NS


Sable Island, NS

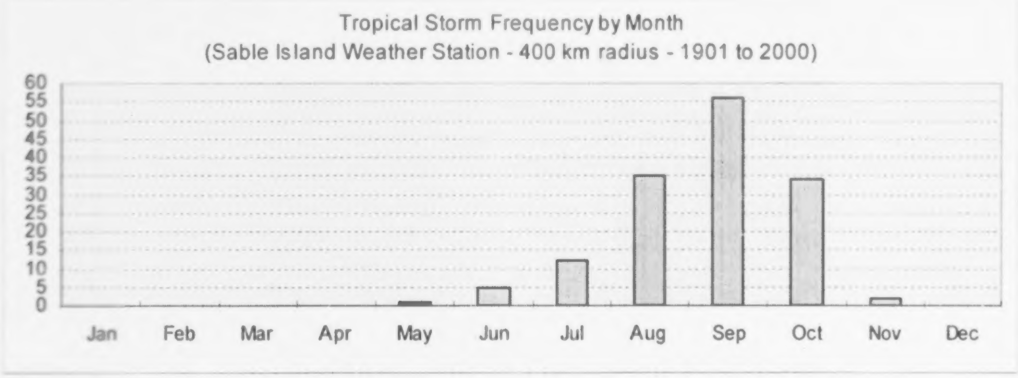
400 km Graphs - Frequency by Time-Periods (1901-2000)



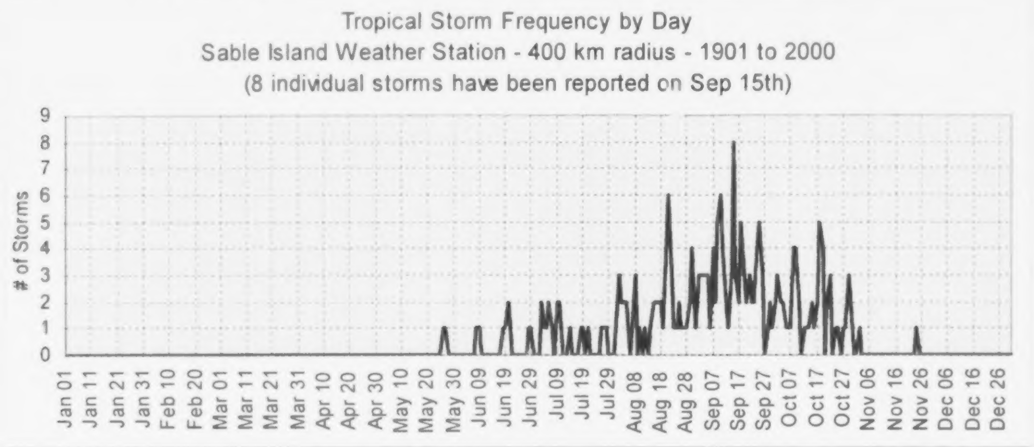



Tropical Storm Frequency by Year
(Sable Island Weather Station - 400 km radius - 1901 to 2000)

Note: Storms that span months were counted in both months

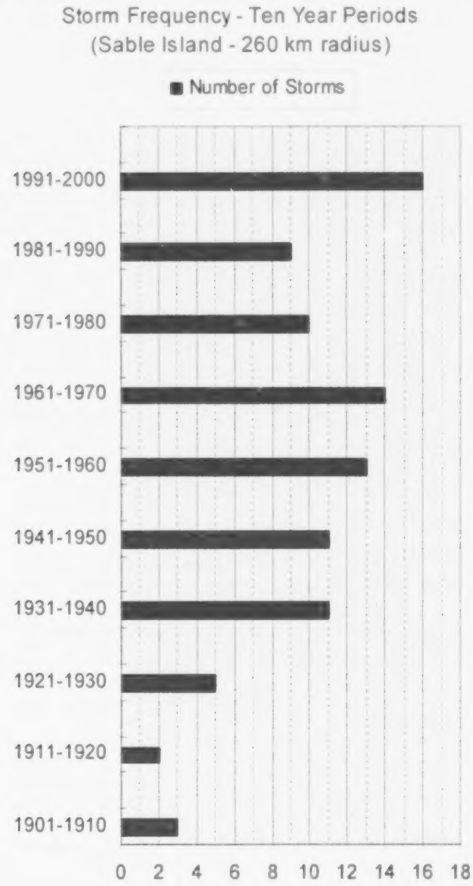

Tropical Storm Frequency by Month
(Sable Island Weather Station - 400 km radius - 1901 to 2000)

Note: Storms will generally span more than one day. The storm is counted in each day

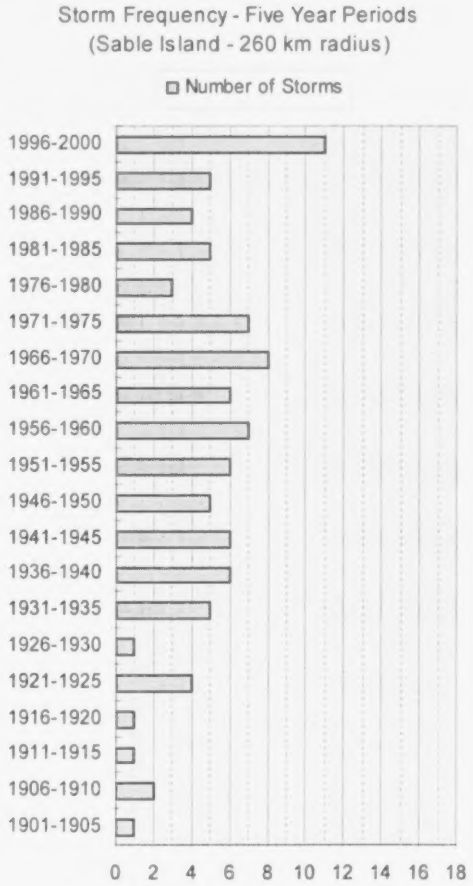


Tropical Storm Frequency by Day
Sable Island Weather Station - 400 km radius - 1901 to 2000
(8 individual storms have been reported on Sep 15th)

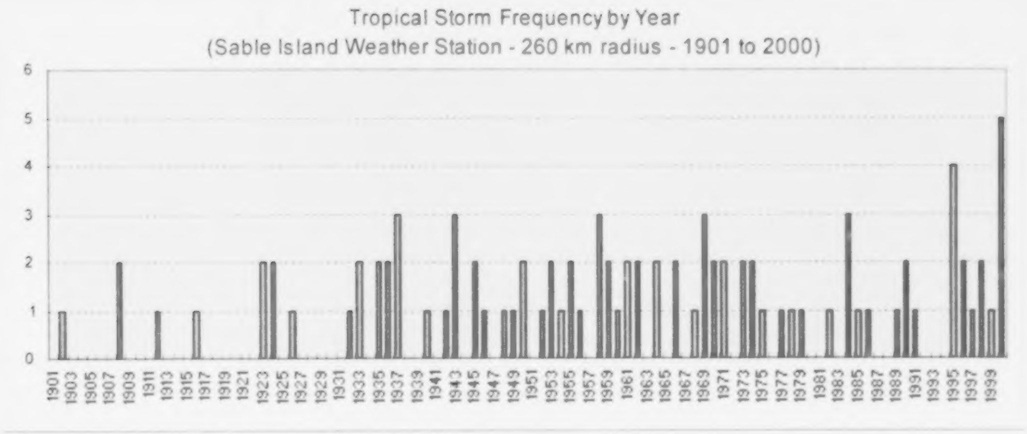
260 km Graphs - Frequency by Time-Periods (1901-2000)



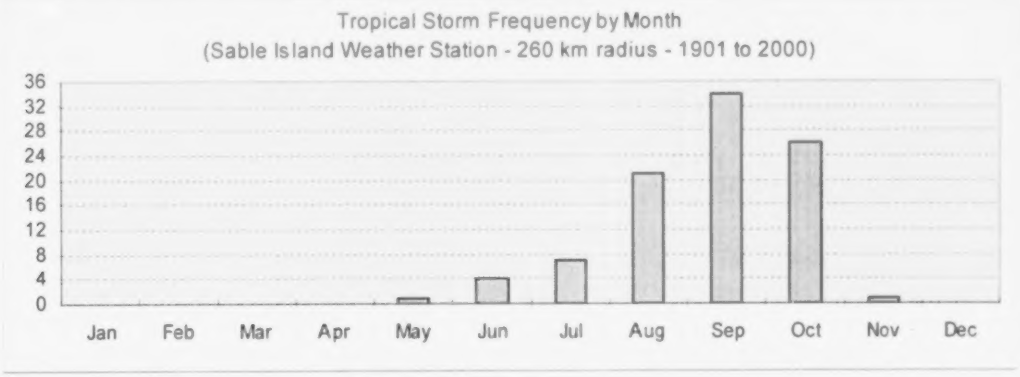
Storm Frequency - Ten Year Periods
(Sable Island - 260 km radius)



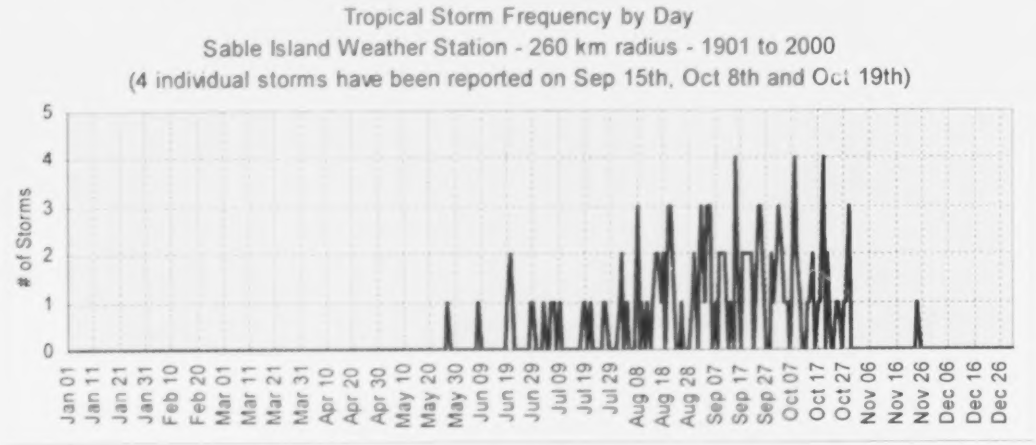
Storm Frequency - Five Year Periods
(Sable Island - 260 km radius)



Note: Storms that span months were counted in both months



Note: Storms will generally span more than one day. The storm is counted in each day


Tropical Storm Frequency by Day
Sable Island Weather Station - 260 km radius - 1901 to 2000
(4 individual storms have been reported on Sep 15th, Oct 8th and Oct 19th)

Sable Island – Summary Statistics 260 km Radius (gale swath)

100 Yr	**TD**	**TS**	**G**	**S**	**S1**	**S2**	**S3**	**S4**	**S5**	**H**	**<H**	**ALL**	**Sys-Spd**
#	6	48	21	27	30	8	1	1	0	40	54	94	28.6
Return	16.7	2.1	4.8	3.7	3.3	12.5	100	100	NA	2.5	1.9	1.1	
50 Yr	**TD**	**TS**	**G**	**S**	**S1**	**S2**	**S3**	**S4**	**S5**	**H**	**<H**	**ALL**	**Sys-Spd**
#	4	33	11	22	20	3	1	1	0	25	37	62	30.8
Return	12.5	1.5	4.5	2.3	2.5	16.7	50	50	NA	2	1.4	0.8	

Sable Island – Summary Statistics 400 km Radius (trace precipitation swath)

100 Yr	**TD**	**TS**	**G**	**S**	**S1**	**S2**	**S3**	**S4**	**S5**	**H**	**<H**	**ALL**	**Sys-Spd**
#	9	67	30	37	49	15	2	1	0	67	76	143	28.7
Return	11.1	1.5	3.3	2.7	2	6.7	50	100	NA	1.5	1.3	0.7	
50 Yr	**TD**	**TS**	**G**	**S**	**S1**	**S2**	**S3**	**S4**	**S5**	**H**	**<H**	**ALL**	**Sys-Spd**
#	7	42	14	28	31	4	2	1	0	38	49	87	29.4
Return	7.1	1.2	3.6	1.8	1.6	12.5	25	50	NA	1.3	1	0.6	

Sable Island – Storms That Tracked Within 400 km of Site (R) and within 260 km of the Site (R/W)

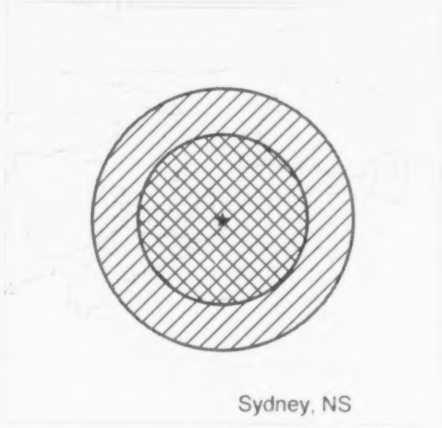
Name	**Date**	**S#**	**MaxWind (kts)**	**SS Scale**	**AvgSysSpd (kts)**	**Pres (mb)**	**Comment**	**ENSO**	**R(km) R/W**
Not Named	Oct 13, 1902	4	40	TS	39.8		E	El Nino	260 R/W
Not Named	Sep 15, 1904	2	65	SS1	59.8		E	El Nino	400 R
Not Named	Sep 10, 1906	3	80	SS1	30.3			La Nina	400 R
Not Named	Aug 02, 1908	2	85	SS2	23.2			La Nina	260 R/W
Not Named	Sep 17, 1908	4	70	SS1	18.8			La Nina	260 R/W
Not Named	Nov 24, 1912	6	60	TS	38.9		E	Neutral	260 R/W
Not Named	Sep 10, 1915	3	60	TS	30.2			Neutral	400 R
Not Named	Sep 24, 1916	10	85	SS2	40.5			La Nina	260 R/W
Not Named	Sep 07, 1918	4	50	TS	19.1		E	El Nino	400 R
Not Named	Sep 09, 1923	1	70	SS1	19.7			Neutral	260 R/W
Not Named	Oct 01, 1923	2	90	SS2	17.0			Neutral	260 R/W
Not Named	Aug 27, 1924	2	85	SS2	34.9		E	La Nina	400 R
Not Named	Sep 04, 1924	3	70	SS1	26.1		E	La Nina	260 R/W
Not Named	Sep 18, 1924	4	40	TS	28.0		E	La Nina	260 R/W

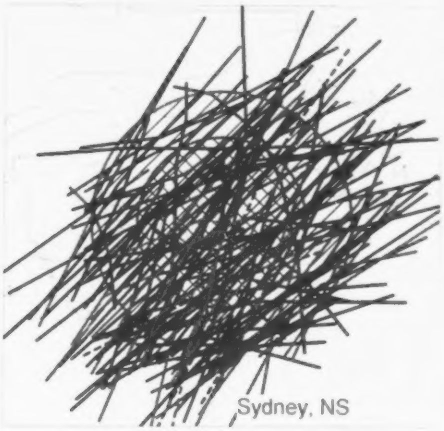
Name	Date	S#	MaxWind (kts)	SS Scale	AvgSysSpd (kts)	Pres (mb)	Comment	ENSO	R(km) R/W
Not Named	Aug 08, 1926	2	75	SS1	25.0			Neutral	260 R/W
Not Named	Sep 21, 1926	4	70	SS1	12.4		E	Neutral	400 R
Not Named	Aug 25, 1927	1	90	SS2	56.5		E	Neutral	400 R
Not Named	Aug 28, 1930	1	80	SS1	36.8		E	El Nino	400 R
Not Named	Sep 09, 1932	4	85	SS2	12.7		E	Neutral	260 R/W
Not Named	Oct 12, 1932	9	35	TS	41.4			Neutral	400 R
Not Named	Aug 29, 1933	9	40	TS	23.4			Neutral	400 R
Not Named	Sep 18, 1933	13	60	TS	19.9		E	Neutral	400 R
Not Named	Oct 08, 1933	18	90	SS2	17.8		E	Neutral	260 R/W
Not Named	Oct 29, 1933	20	60	TS	14.3		E	Neutral	260 R/W
Not Named	Aug 24, 1935	1	80	SS1	25.8			Neutral	260 R/W
Not Named	Sep 07, 1935	2	80	SS1	41.0			Neutral	400 R
Not Named	Oct 01, 1935	4	80	SS1	29.5			Neutral	260 R/W
Not Named	Aug 10, 1936	6	40	TS	20.5		E	Neutral	260 R/W
Not Named	Sep 19, 1936	13	75	SS1	31.7			Neutral	260 R/W
Not Named	Aug 01, 1937	1	45	TS	13.8			Neutral	400 R
Not Named	Aug 08, 1937	2	40	TS	16.9			Neutral	260 R/W
Not Named	Sep 25, 1937	7	85	SS2	23.2			Neutral	260 R/W
Not Named	Sep 29, 1937	8	35	TS	26.0		E	Neutral	260 R/W
Not Named	Oct 17, 1939	4	95	SS2	40.1			Neutral	400 R
Not Named	May 26, 1940	1	30	TD	15.9			El Nino	260 TD
Not Named	Sep 17, 1940	5	65	SS1	17.1			El Nino	400 R
Not Named	Sep 23, 1942	5	35	TS	11.0		E	La Nina	260 R/W
Not Named	Oct 18, 1942	9	35	TS	37.9			La Nina	400 R
Not Named	Aug 26, 1943	3	75	SS1	41.6			Neutral	400 R
Not Named	Sep 09, 1943	4	75	SS1	28.6			Neutral	260 R/W
Not Named	Sep 15, 1943	5	40	TS	23.4		E	Neutral	260 R/W
Not Named	Oct 03, 1943	8	45	TS	22.4			Neutral	260 R/W
Not Named	Sep 15, 1944	7	35	TS	40.1		E	La Nina	400 R
Not Named	Oct 22, 1944	11	45	TS	31.9		E	La Nina	400 R
Not Named	Jun 28, 1945	1	45	TS	14.6			Neutral	260 R/W
Not Named	Sep 19, 1945	9	25	TD	37.8		E	Neutral	260 TD
Not Named	Jul 09, 1946	2	60	TS	18.6		E	Neutral	400 R
Not Named	Sep 15, 1946	4	65	SS1	29.3			Neutral	260 R/W
Not Named	Sep 01, 1948	3	60	TS	30.4		E	Neutral	260 R/W
Not Named	Sep 15, 1948	6	80	SS1	33.6			Neutral	400 R
Not Named	Sep 24, 1948	7	60	TS	39.6		E	Neutral	400 R
Not Named	Sep 09, 1949	4	85	SS2	31.0			La Nina	400 R
Not Named	Oct 18, 1949	11	45	TS	11.0		E	La Nina	260 R/W
Able	Aug 21, 1950	1	65	SS1	26.8			Neutral	400 R
Dog	Sep 12, 1950	4	60	TS	14.7		E	Neutral	260 R/W
George	Oct 04, 1950	7	95	SS2	37.0			Neutral	260 R/W
How	Oct 06, 1951	8	70	SS1	43.4			El Nino	400 R
Baker	Sep 07, 1952	3	75	SS1	43.1	969		Neutral	260 R/W
Barbara	Aug 15, 1953	2	75	SS1	34.0			Neutral	260 R/W
Not Named	Oct 07, 1953	10	60	TS	20.8		E	Neutral	260 R/W
Dolly	Sep 02, 1954	4	70	SS1	36.4			La Nina	260 R/W
Diane	Aug 20, 1955	3	35	TS	25.4			La Nina	260 R/W
Ione	Sep 21, 1955	9	75	SS1	31.7			La Nina	260 R/W
Betsy	Aug 18, 1956	3	50	TS	25.1			La Nina	260 R/W
Frieda	Sep 26, 1957	7	65	SS1	18.1			El Nino	400 R
Becky	Aug 17, 1958	2	25	TD	39.8		E	Neutral	260 TD
Daisy	Aug 30, 1958	4	85	SS2	31.0	987	E	Neutral	260 R/W
Helene	Sep 29, 1958	8	85	SS2	40.9	959		Neutral	260 R/W
Not Named	Jun 19, 1959	3	70	SS1	20.5		E	Neutral	260 R/W

Name	Date	S#	MaxWind (kts)	SS Scale	AvgSysSpd (kts)	Pres (mb)	Comment	ENSO	R(km) R/W
Gracie	Oct 02, 1959	8	25	TD	32.3		E	Neutral	260 TD
Cleo	Aug 20, 1960	4	60	TS	20.0			Neutral	260 R/W
Frances	Oct 09, 1961	7	40	TS	24.6		E	Neutral	260 R/W
Gerda	Oct 21, 1961	8	60	TS	18.7	993	E	Neutral	260 R/W
Alma	Sep 02, 1962	1	25	TD	36.9	1002	E	Neutral	260 TD
Daisy	Oct 08, 1962	4	65	SS1	17.3			Neutral	260 R/W
Ella	Oct 22, 1962	5	65	SS1	42.9			Neutral	400 R
Dora	Sep 14, 1964	6	55	TS	28.5		E	La Nina	260 R/W
Gladys	Sep 24, 1964	9	65	SS1	36.2	982		La Nina	260 R/W
Not Named	Jun 18, 1965	1	25	TD	21.0		E	El Nino	400 TD
Becky	Jul 03, 1966	2	55	TS	17.5			Neutral	260 R/W
Celia	Jul 21, 1966	3	70	SS1	36.8	998		Neutral	260 R/W
Gladys	Oct 21, 1968	8	65	SS1	30.1			Neutral	260 R/W
Anna	Aug 03, 1969	1	55	TS	31.8	1002		El Nino	260 R/W
Blanche	Aug 12, 1969	2	75	SS1	42.5			El Nino	260 R/W
Camille	Aug 22, 1969	3	60	TS	33.8			El Nino	400 R
Not Named	Sep 25, 1969	10	65	SS1	22.1			El Nino	260 R/W
Not Named	Oct 30, 1969	17	50	TS	9.4		E	El Nino	400 R
Not Named	Aug 18, 1970	4	60	TS	41.0	992		La Nina	260 R/W
Not Named	Oct 17, 1970	9	90	SS2	49.6	974		La Nina	260 R/W
Arlene	Jul 06, 1971	1	55	TS	27.7	1000		La Nina	260 R/W
Not Named	Aug 05, 1971	2	40	TS	21.4	1000		La Nina	400 R
Beth	Aug 16, 1971	3	65	SS1	14.8	978		La Nina	260 R/W
Alice	Jul 06, 1973	1	65	SS1	28.6	995		La Nina	260 R/W
Gilda	Oct 27, 1973	8	55	TS	29.9		S	La Nina	260 R/W
Subtrop 3	Aug 14, 1974	3	50	TS	17.9	992	S	Neutral	260 R/W
Dolly	Sep 05, 1974	7	40	TS	31.7			Neutral	260 R/W
Amy	Jul 03, 1975	1	50	TS	31.2	986		La Nina	400 R
Blanche	Jul 28, 1975	2	60	TS	37.5	988	E	La Nina	400 R
Faye	Sep 28, 1975	6	80	SS1	28.6	985		La Nina	400 R
Gladys	Oct 03, 1975	7	110	SS3	52.2	950		La Nina	260 R/W
Candice	Aug 22, 1976	4	70	SS1	6.0			El Nino	400 R
Evelyn	Oct 15, 1977	5	70	SS1	26.3	996		Neutral	260 R/W
Ella	Sep 04, 1978	6	120	SS4	38.7	956		Neutral	260 R/W
Subtrop 1	Oct 24, 1979	9	65	SS1	37.5	985	S	Neutral	260 R/W
Georges	Sep 08, 1980	7	70	SS1	39.8	993		Neutral	400 R
Cindy	Aug 04, 1981	3	50	TS	20.4	1002		Neutral	400 R
Emily	Sep 06, 1981	5	80	SS1	6.4	968		Neutral	400 R
Subtrop 1	Jun 20, 1982	2	60	TS	37.2	988	S	El Nino	260 R/W
Debby	Sep 18, 1982	5	110	SS3	24.8	952		El Nino	400 R
Cesar	Sep 01, 1984	4	40	TS	18.6	999		Neutral	260 R/W
Diana	Sep 15, 1984	5	60	TS	38.8	992		Neutral	260 R/W
Josephine	Oct 16, 1984	11	65	SS1	11.4	982		Neutral	260 R/W
Ana	Jul 19, 1985	1	60	TS	25.6	996		Neutral	260 R/W
Charley	Aug 20, 1986	3	40	TS	13.8	1003		El Nino	260 R/W
Chris	Aug 30, 1988	3	25	TD	38.0	1008		La Nina	400 TD
Dean	Aug 07, 1989	4	80	SS1	29.2	972		Neutral	260 R/W
Gabrielle	Sep 12, 1989	7	35	TS	10.5	1006		Neutral	400 R
Bertha	Aug 02, 1990	2	70	SS1	17.7	973		Neutral	260 R/W
Lili	Oct 14, 1990	12	45	TS	37.3	995		Neutral	260 R/W
Unnamed	Nov 02, 1991	8	60	TS	19.0	988		El Nino	260 R/W
Floyd	Sep 09, 1993	6	65	SS1	39.0	990		Neutral	400 R
Chris	Aug 23, 1994	3	40	TS	31.8	1003		Neutral	400 R
Allison	Jun 08, 1995	1	50	TS	22.8	984	E	Neutral	260 R/W
Barry	Jul 09, 1995	2	50	TS	22.3	995		Neutral	260 R/W

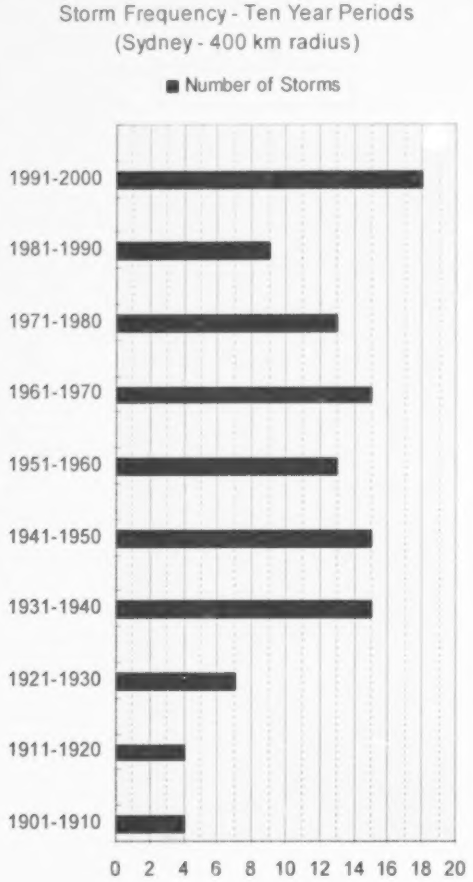
Name	Date	S#	MaxWind (kts)	SS Scale	AvgSysSpd (kts)	Pres (mb)	Comment	ENSO	R(km) R/W
Felix	Aug 21, 1995	6	50	TS	36.5	988		Neutral	260 R/W
Luis	Sep 10, 1995	12	80	SS1	37.2	961		Neutral	260 R/W
Bertha	Jul 14, 1996	2	50	TS	32.3	995	E	Neutral	400 R
Edouard	Sep 03, 1996	5	50	TS	17.0	992	E	Neutral	260 R/W
Hortense	Sep 14, 1996	8	75	SS1	22.9	960		Neutral	260 R/W
Josephine	Oct 09, 1996	10	45	TS	32.7	984	E	Neutral	400 R
Ana	Jul 04, 1997	2	25	TD	18.9	1004	E	El Nino	400 TD
Danny	Jul 26, 1997	5	40	TS	38.2	1004	E	El Nino	260 R/W
Bonnie	Aug 29, 1998	2	45	TS	29.4	1000		La Nina	260 R/W
Danielle	Sep 03, 1998	4	70	SS1	26.6	970		La Nina	400 R
Earl	Sep 05, 1998	5	50	TS	36.8	998	E	La Nina	260 R/W
Floyd	Sep 18, 1999	6	35	TS	24.3	990	E	La Nina	400 R
Gert	Sep 22, 1999	7	65	SS1	25.5	963		La Nina	400 R
Irene	Oct 18, 1999	9	80	SS1	66.0	968		La Nina	260 R/W
Gordon	Sep 21, 2000	7	30	TD	15.4	1004	E	La Nina	260 TD
Helene	Sep 25, 2000	8	60	TS	48.1	986		La Nina	260 R/W
Leslie	Oct 08, 2000	12	40	TS	38.5	1004	E	La Nina	260 R/W
Michael	Oct 19, 2000	13	85	SS2	45.2	965		La Nina	260 R/W
Subtrop	Oct 29, 2000	15	55	TS	30.1	978	S	La Nina	260 R/W

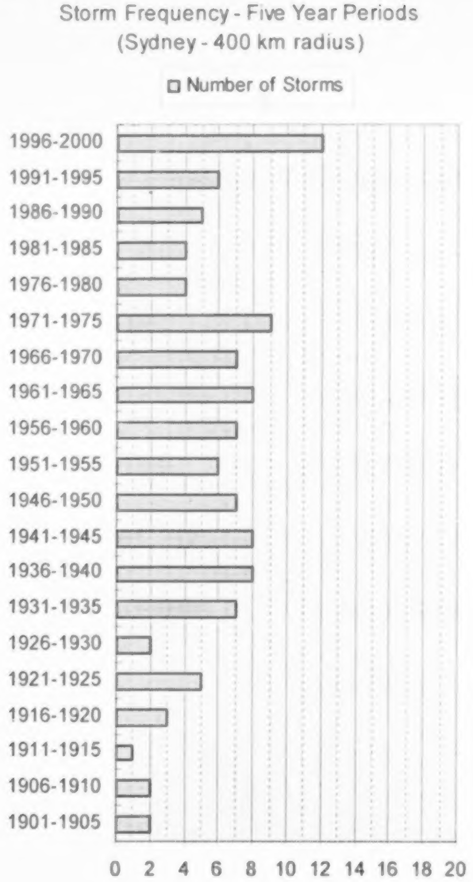
Sydney

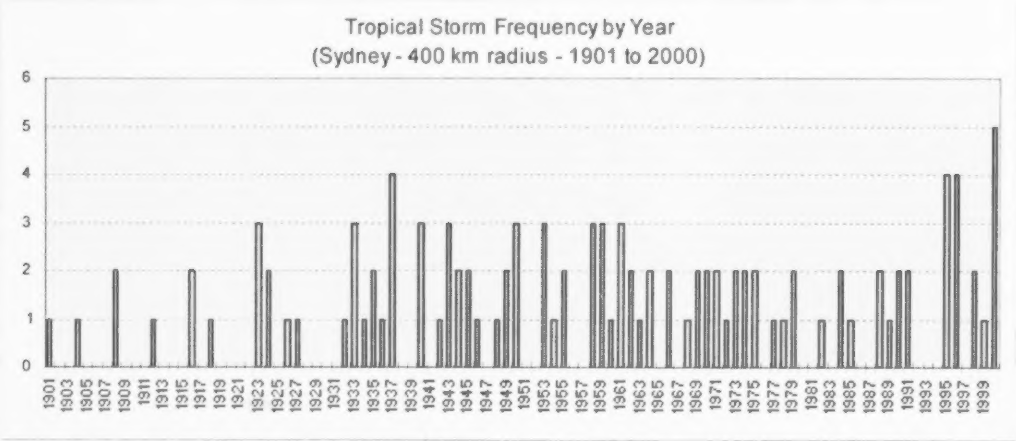




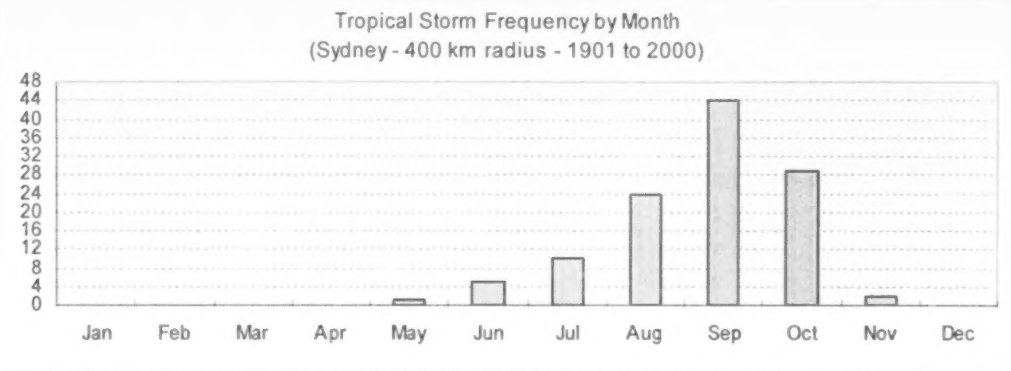
400 km Graphs - Frequency by Time-Periods (1901-2000)



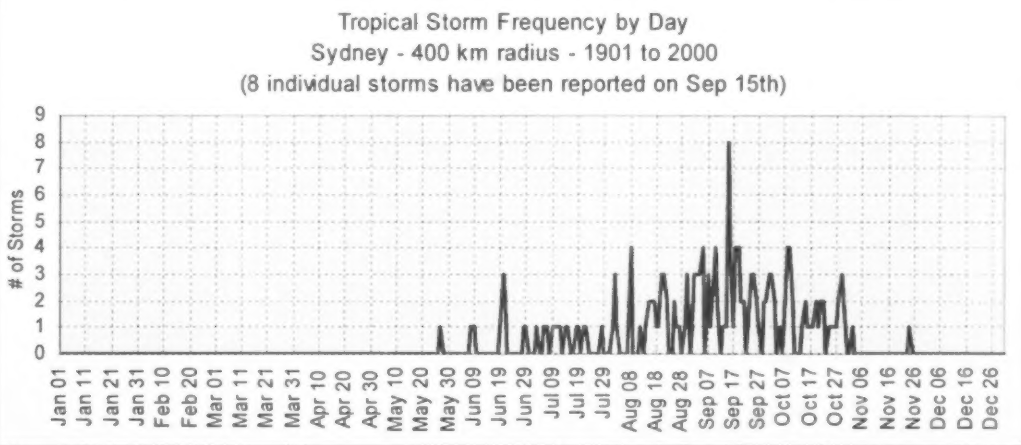




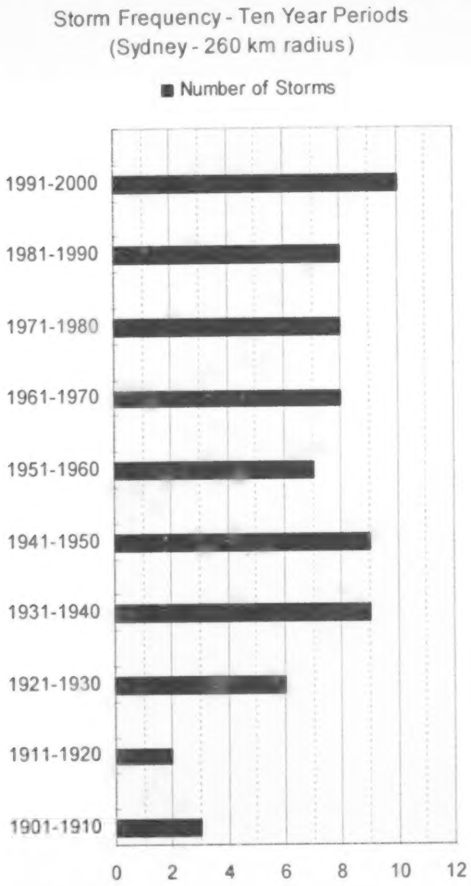
Note: Storms that span months were counted in both months

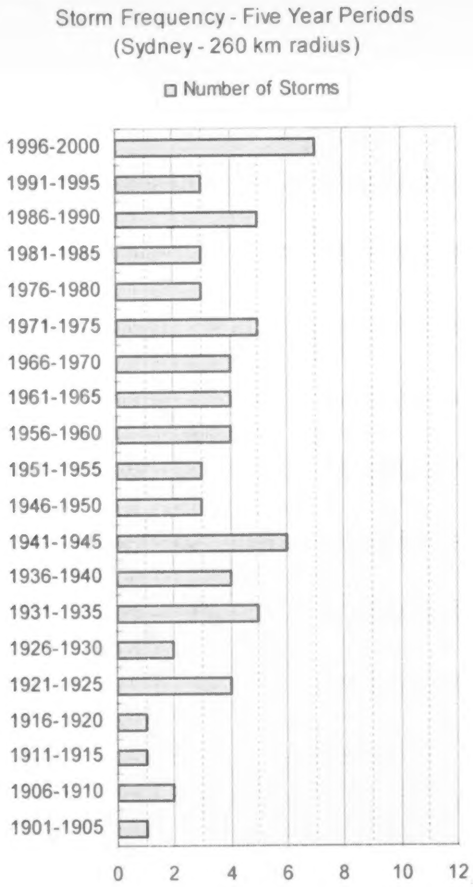


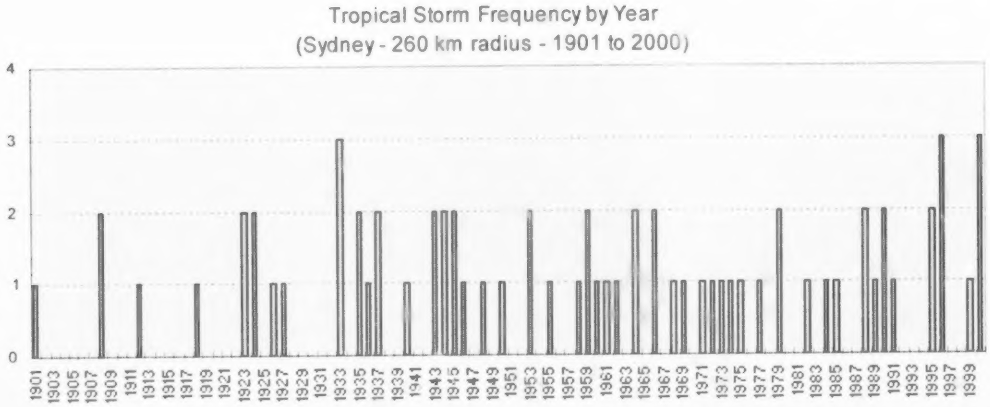
Note: Storms will generally span more than one day. The storm is counted in each day



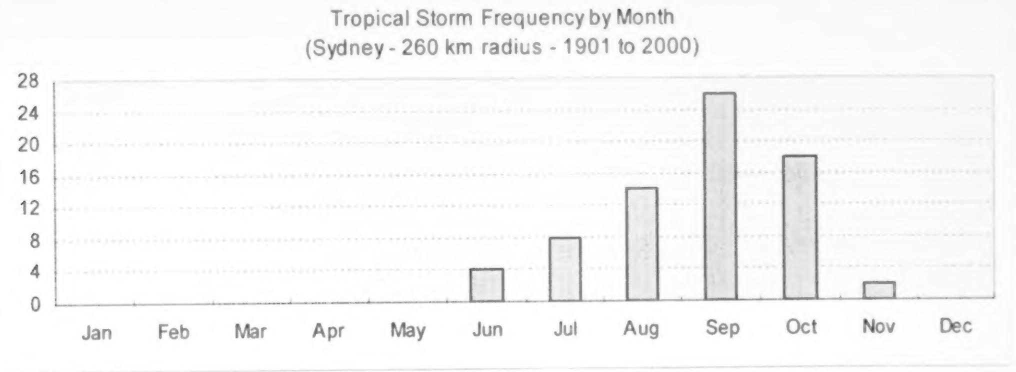
260 km Graphs - Frequency by Time-Periods (1901-2000)


Storm Frequency - Ten Year Periods
(Sydney - 260 km radius)

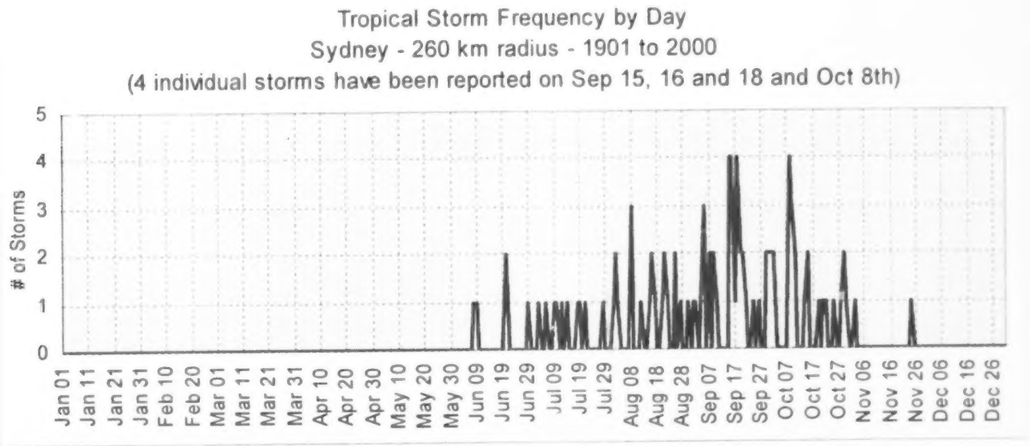

Storm Frequency - Five Year Periods
(Sydney - 260 km radius)


Tropical Storm Frequency by Year
(Sydney - 260 km radius - 1901 to 2000)

Note: Storms that span months were counted in both months


Tropical Storm Frequency by Month
(Sydney - 260 km radius - 1901 to 2000)

Note: Storms will generally span more than one day. The storm is counted in each day


Tropical Storm Frequency by Day
Sydney - 260 km radius - 1901 to 2000
(4 individual storms have been reported on Sep 15, 16 and 18 and Oct 8th)

Sydney – Summary Statistics 260 km Radius (gale swath)

100 Yr	**TD**	**TS**	**G**	**S**	**S1**	**S2**	**S3**	**S4**	**S5**	**H**	**<H**	**ALL**	**Sys-Spd**
#	3	41	17	24	23	3	0	0	0	26	44	70	28.8
Return	33.3	2.4	5.9	4.2	4.3	33.3	NA	NA	NA	3.8	2.3	1.4	
50 Yr	**TD**	**TS**	**G**	**S**	**S1**	**S2**	**S3**	**S4**	**S5**	**H**	**<H**	**ALL**	**Sys-Spd**
#	1	27	10	17	12	1	0	0	0	13	28	41	29.3
Return	50	1.9	5	2.9	4.2	50	NA	NA	NA	3.8	1.8	1.2	

Sydney – Summary Statistics 400 km Radius (trace precipitation swath)

100 Yr	**TD**	**TS**	**G**	**S**	**S1**	**S2**	**S3**	**S4**	**S5**	**H**	**<H**	**ALL**	**Sys-Spd**
#	8	60	26	34	33	10	1	1	0	45	68	113	29.0
Return	**12.5**	**1.7**	**3.8**	**2.9**	**3**	**10**	**100**	**100**	**NA**	**2.2**	**1.5**	**0.9**	
50 Yr	TD	TS	G	S	S1	S2	S3	S4	S5	H	<H	ALL	Sys-Spd
#	5	39	12	27	19	3	1	1	0	24	44	68	30.7
Return	10	1.3	4.2	1.9	2.6	16.7	50	50	NA	2.1	1.1	0.7	

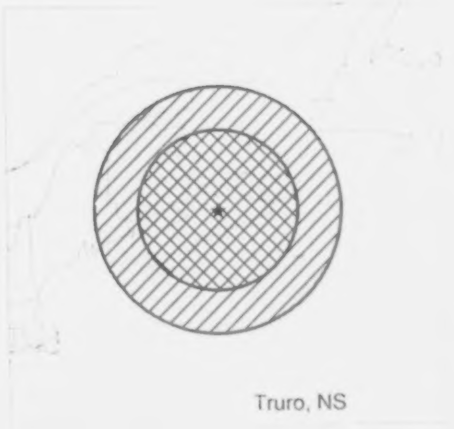
Sydney – Storms That Tracked Within 400 km of Site (R) and within 260 km of the Site (R/W)

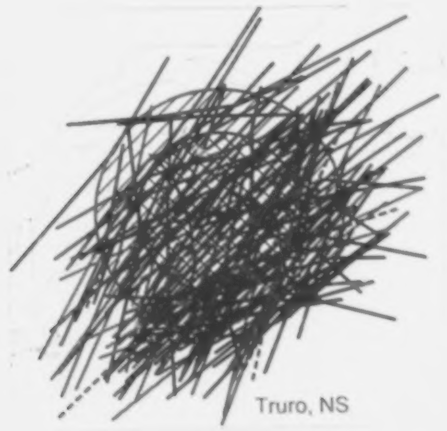
Name	Date	S#	MaxWind (kts)	SS Scale	AvgSysSpd (kts)	Pres (mb)	Comment	ENSO	R(km) R/W
Not Named	Oct 01, 1901	8	35	TS	26.5		E	Neutral	260 TD
Not Named	Sep 15, 1904	2	65	SS1	59.8		E	El Nino	400 R
Not Named	Aug 02, 1908	2	85	SS2	22.0			La Nina	260 R/W
Not Named	Sep 18, 1908	4	70	SS1	19.7			La Nina	260 R/W
Not Named	Nov 24, 1912	6	60	TS	38.9		E	Neutral	260 R/W
Not Named	Jul 22, 1916	2	45	TS	40.6			La Nina	400 R
Not Named	Sep 24, 1916	10	85	SS2	40.5			La Nina	400 R
Not Named	Sep 07, 1918	4	50	TS	19.1		E	El Nino	260 R/W
Not Named	Sep 09, 1923	1	70	SS1	23.3			Neutral	260 R/W
Not Named	Oct 01, 1923	2	85	SS2	15.9		E	Neutral	260 R/W
Not Named	Oct 26, 1923	4	30	TD	19.9		E	Neutral	400 TD
Not Named	Aug 27, 1924	2	85	SS2	33.1		E	La Nina	260 R/W
Not Named	Sep 04, 1924	3	70	SS1	26.4		E	La Nina	260 R/W
Not Named	Aug 08, 1926	2	75	SS1	25.0			Neutral	260 R/W
Not Named	Aug 25, 1927	1	90	SS2	51.0		E	Neutral	260 R/W
Not Named	Sep 10, 1932	4	80	SS1	11.3		E	Neutral	400 R
Not Named	Sep 18, 1933	13	60	TS	17.4		E	Neutral	260 R/W
Not Named	Oct 08, 1933	18	85	SS2	18.3		E	Neutral	260 R/W
Not Named	Oct 29, 1933	20	60	TS	12.8		E	Neutral	260 R/W
Not Named	Jun 20, 1934	2	40	TS	18.2		E	Neutral	400 R
Not Named	Aug 25, 1935	1	75	SS1	12.7		E	Neutral	260 R/W
Not Named	Oct 01, 1935	4	75	SS1	32.9		E	Neutral	260 R/W
Not Named	Sep 19, 1936	13	75	SS1	31.7			Neutral	260 R/W
Not Named	Aug 02, 1937	1	40	TS	12.2			Neutral	400 R
Not Named	Aug 08, 1937	2	35	TS	25.5			Neutral	400 R
Not Named	Sep 26, 1937	7	80	SS1	24.4		E	Neutral	260 R/W
Not Named	Sep 29, 1937	8	35	TS	26.0		E	Neutral	260 R/W
Not Named	May 27, 1940	1	25	TD	17.5			El Nino	400 TD
Not Named	Sep 03, 1940	4	45	TS	26.6			El Nino	400 R
Not Named	Sep 17, 1940	5	65	SS1	16.4			El Nino	260 R/W
Not Named	Sep 23, 1942	5	35	TS	11.4		E	La Nina	400 R
Not Named	Sep 09, 1943	4	70	SS1	30.5			Neutral	260 R/W
Not Named	Sep 15, 1943	5	40	TS	25.0		E	Neutral	260 R/W
Not Named	Oct 03, 1943	8	45	TS	25.1			Neutral	400 R
Not Named	Sep 15, 1944	7	35	TS	40.8		E	La Nina	260 R/W
Not Named	Oct 22, 1944	11	45	TS	31.9		E	La Nina	260 R/W
Not Named	Jun 28, 1945	1	40	TS	16.8		E	Neutral	260 R/W
Not Named	Sep 19, 1945	9	25	TD	37.8		E	Neutral	260 TD
Not Named	Sep 15, 1946	4	60	TS	31.0		E	Neutral	260 R/W
Not Named	Sep 01, 1948	3	60	TS	29.7		E	Neutral	260 R/W
Not Named	Sep 10, 1949	4	75	SS1	35.7			La Nina	400 R
Not Named	Oct 19, 1949	11	45	TS	22.6		E	La Nina	400 R
Able	Aug 21, 1950	1	65	SS1	26.8			Neutral	260 R/W
Dog	Sep 13, 1950	4	55	TS	14.5		E	Neutral	400 R
George	Oct 05, 1950	7	85	SS2	38.6			Neutral	400 R

Name	Date	S#	MaxWind (kts)	SS Scale	AvgSysSpd (kts)	Pres (mb)	Comment	ENSO	R(km) R/W
Barbara	Aug 15, 1953	2	70	SS1	39.5		E	Neutral	260 R/W
Carol	Sep 07, 1953	4	65	SS1	31.9			Neutral	400 R
Not Named	Oct 07, 1953	10	60	TS	21.5		E	Neutral	260 R/W
Dolly	Sep 02, 1954	4	70	SS1	36.2		E	La Nina	400 R
Diane	Aug 20, 1955	3	35	TS	27.3			La Nina	400 R
Ione	Sep 21, 1955	9	60	TS	25.8		E	La Nina	260 R/W
Becky	Aug 17, 1958	2	25	TD	40.7		E	Neutral	400 TD
Daisy	Aug 30, 1958	4	85	SS2	34.1	987	E	Neutral	400 R
Helene	Sep 29, 1958	8	70	SS1	41.0	963		Neutral	260 R/W
Not Named	Jun 19, 1959	3	70	SS1	18.1		E	Neutral	260 R/W
Cindy	Jul 11, 1959	4	50	TS	29.7		E	Neutral	260 R/W
Gracie	Oct 02, 1959	8	25	TD	30.8		E	Neutral	400 TD
Cleo	Aug 20, 1960	4	60	TS	20.0			Neutral	260 R/W
Not Named	Sep 15, 1961	6	35	TS	60.6			Neutral	400 R
Frances	Oct 09, 1961	7	40	TS	24.6		E	Neutral	260 R/W
Gerda	Oct 21, 1961	8	50	TS	19.1		E	Neutral	400 R
Alma	Sep 02, 1962	1	15	TD	50.4		E	Neutral	400 TD
Daisy	Oct 08, 1962	4	65	SS1	18.2			Neutral	260 R/W
Ginny	Oct 29, 1963	8	90	SS2	27.1		E	El Nino	400 R
Dora	Sep 15, 1964	6	55	TS	26.5		E	La Nina	260 R/W
Gladys	Sep 24, 1964	9	65	SS1	40.4	973		La Nina	260 R/W
Becky	Jul 03, 1966	2	55	TS	17.5			Neutral	260 R/W
Celia	Jul 21, 1966	3	70	SS1	36.8	998		Neutral	260 R/W
Gladys	Oct 21, 1968	8	65	SS1	30.1			Neutral	260 R/W
Blanche	Aug 12, 1969	2	75	SS1	42.3			El Nino	260 R/W
Not Named	Sep 25, 1969	10	65	SS1	19.2	985		El Nino	400 R
Not Named	Aug 18, 1970	4	60	TS	23.6	992		La Nina	400 R
Not Named	Oct 17, 1970	9	70	SS1	55.2	980		La Nina	400 R
Arlene	Jul 07, 1971	1	50	TS	28.8	1000		La Nina	400 R
Beth	Aug 16, 1971	3	65	SS1	14.8	979		La Nina	260 R/W
Carrie	Sep 05, 1972	4	40	TS	8.9	1005	E	El Nino	260 R/W
Alice	Jul 06, 1973	1	60	TS	33.8			La Nina	260 R/W
Gilda	Oct 27, 1973	8	55	TS	30.8		S	La Nina	400 R
Subtrop 3	Aug 14, 1974	3	50	TS	22.0		S	Neutral	400 R
Dolly	Sep 05, 1974	7	40	TS	28.1			Neutral	260 R/W
Blanche	Jul 28, 1975	2	60	TS	37.5	988	E	La Nina	260 R/W
Gladys	Oct 03, 1975	7	110	SS3	52.2	950		La Nina	400 R
Evelyn	Oct 15, 1977	5	70	SS1	23.5	996		Neutral	260 R/W
Ella	Sep 04, 1978	6	115	SS4	41.0	956		Neutral	400 R
David	Sep 07, 1979	4	50	TS	35.5	988	E	Neutral	260 R/W
Subtrop 1	Oct 24, 1979	9	65	SS1	38.8	985	S	Neutral	260 R/W
Subtrop 1	Jun 20, 1982	2	60	TS	37.2	988	S	El Nino	260 R/W
Diana	Sep 15, 1984	5	60	TS	38.8	992		Neutral	260 R/W
Josephine	Oct 18, 1984	11	50	TS	9.1	994		Neutral	400 R
Ana	Jul 19, 1985	1	60	TS	28.0	996		Neutral	260 R/W
Alberto	Aug 08, 1988	1	35	TS	29.2	1004		La Nina	260 R/W
Chris	Aug 30, 1988	3	25	TD	38.0	1008		La Nina	260 TD
Dean	Aug 08, 1989	4	75	SS1	31.6	975		Neutral	260 R/W
Bertha	Aug 02, 1990	2	70	SS1	20.6	973		Neutral	260 R/W
Lili	Oct 14, 1990	12	45	TS	37.5	995		Neutral	260 R/W
Bob	Aug 20, 1991	2	45	TS	27.7	998		El Nino	400 R
Unnamed	Nov 02, 1991	8	60	TS	21.4	988		El Nino	260 R/W
Allison	Jun 08, 1995	1	50	TS	23.6	984	E	Neutral	260 R/W
Barry	Jul 09, 1995	2	50	TS	22.6	993		Neutral	260 R/W
Felix	Aug 22, 1995	6	50	TS	38.6	987		Neutral	400 R

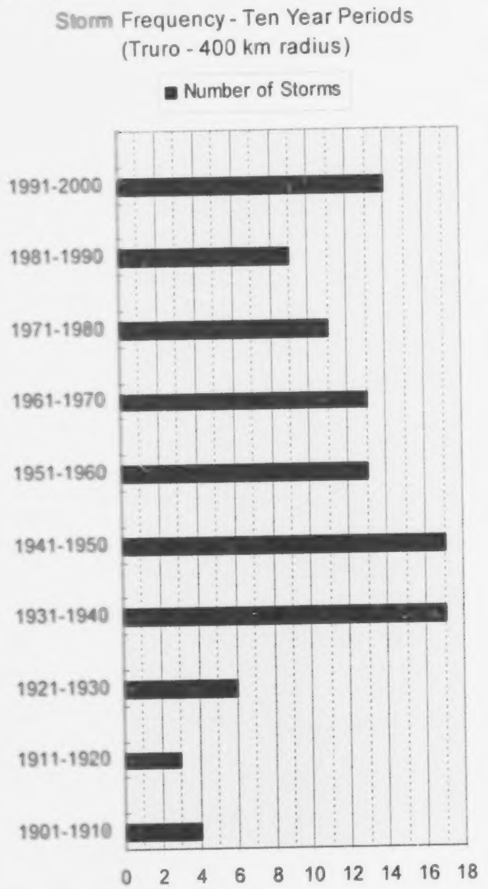
Name	Date	S#	MaxWind (kts)	SS Scale	AvgSysSpd (kts)	Pres (mb)	Comment	ENSO	R(km) R/W
Luis	Sep 10, 1995	12	80	SS1	39.3	966		Neutral	400 R
Bertha	Jul 14, 1996	2	50	TS	33.0	995	E	Neutral	260 R/W
Edouard	Sep 03, 1996	5	50	TS	18.5	995	E	Neutral	400 R
Hortense	Sep 14, 1996	8	75	SS1	19.7	960		Neutral	260 R/W
Josephine	Oct 09, 1996	10	45	TS	29.2	984	E	Neutral	260 R/W
Bonnie	Aug 29, 1998	2	45	TS	29.4	1000		La Nina	400 R
Earl	Sep 05, 1998	5	50	TS	34.2	990	E	La Nina	400 R
Floyd	Sep 18, 1999	6	35	TS	23.7	990	E	La Nina	260 R/W
Gordon	Sep 21, 2000	7	30	TD	15.4	1004	E	La Nina	400 TD
Helene	Sep 25, 2000	8	60	TS	54.7	986		La Nina	400 R
Leslie	Oct 08, 2000	12	40	TS	38.5	1004	E	La Nina	260 R/W
Michael	Oct 19, 2000	13	85	SS2	36.9	965		La Nina	260 R/W
Subtrop	Oct 29, 2000	15	55	TS	30.1	978	S	La Nina	260 R/W

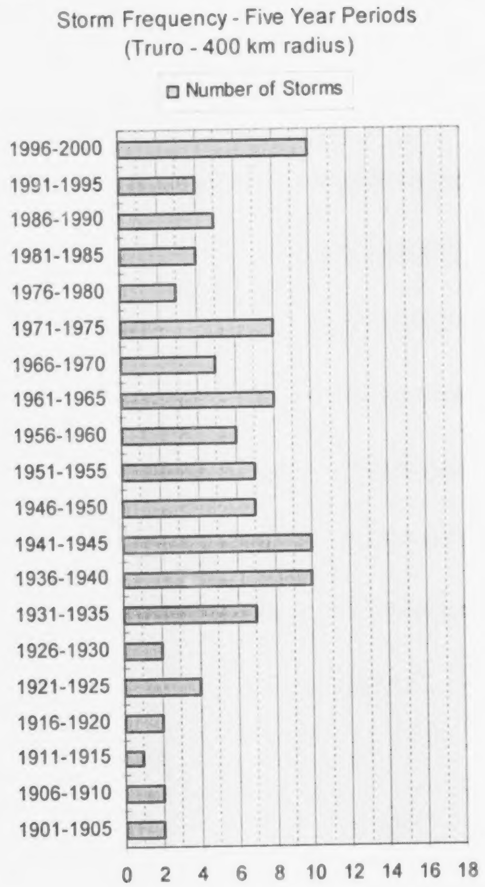
Truro

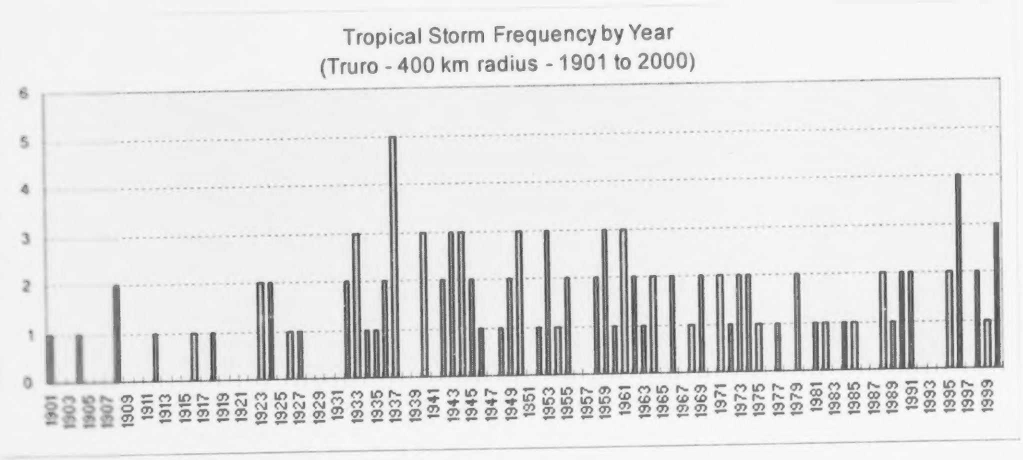




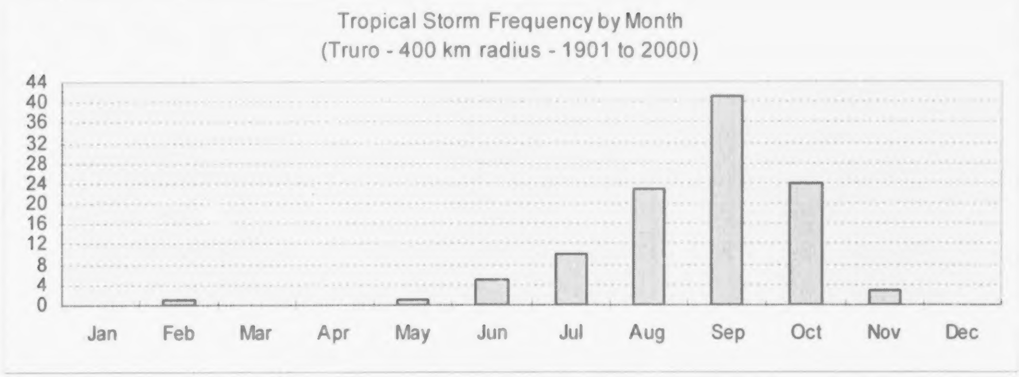
400 km Graphs - Frequency by Time-Periods (1901-2000)



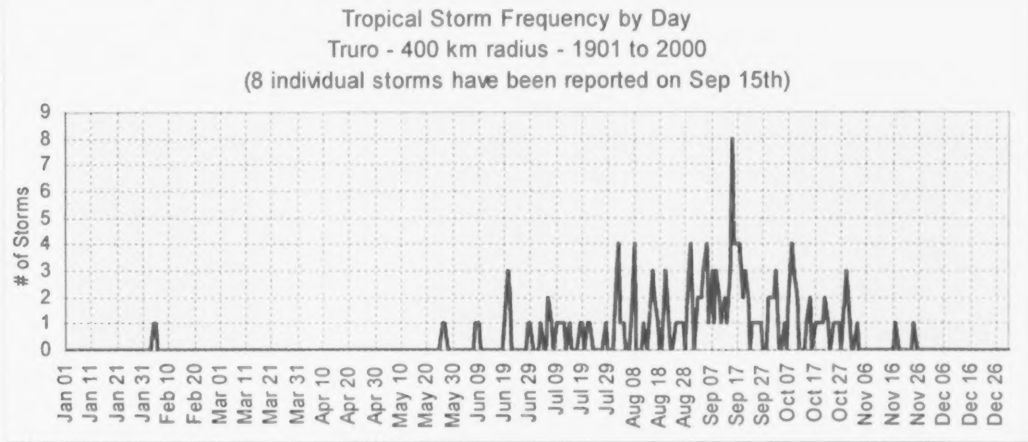




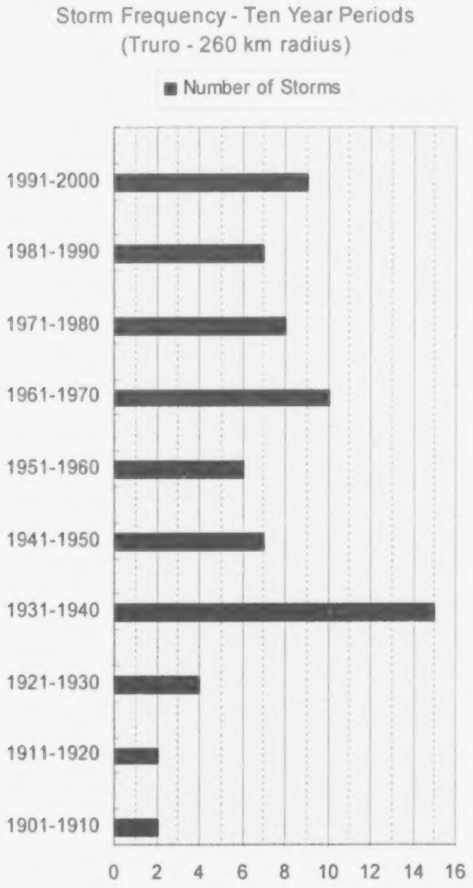
Note: Storms that span months were counted in both months

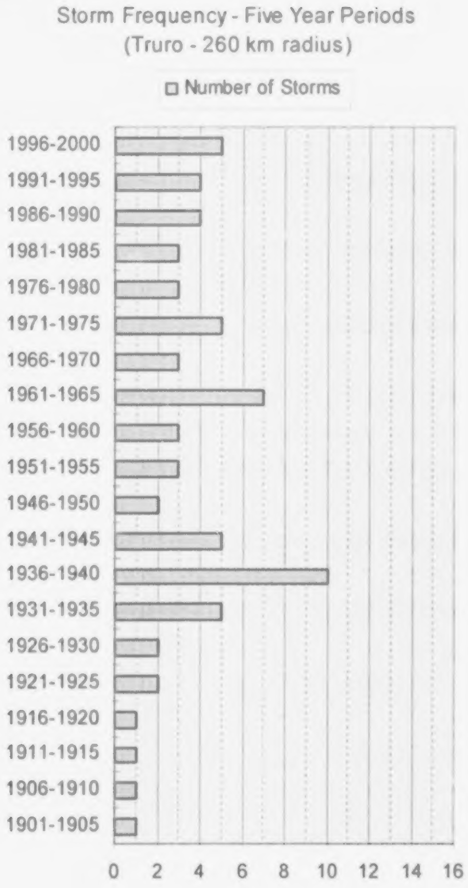


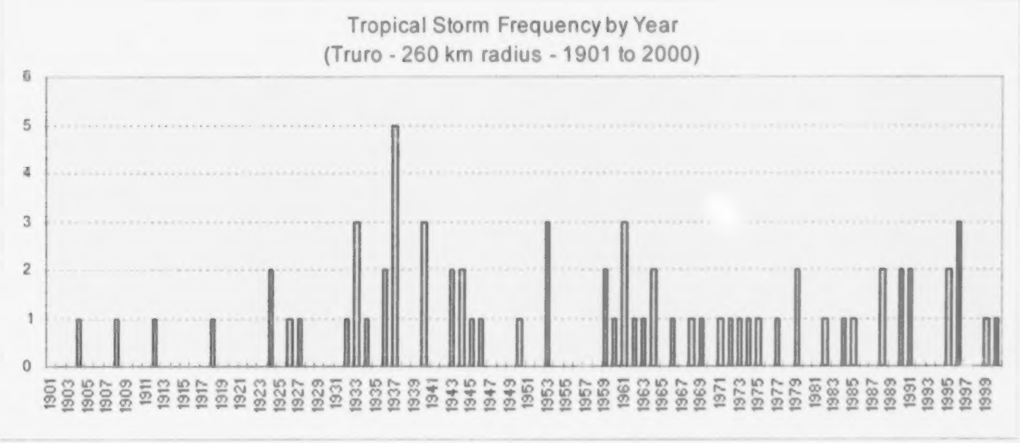
Note: Storms will generally span more than one day. The storm is counted in each day



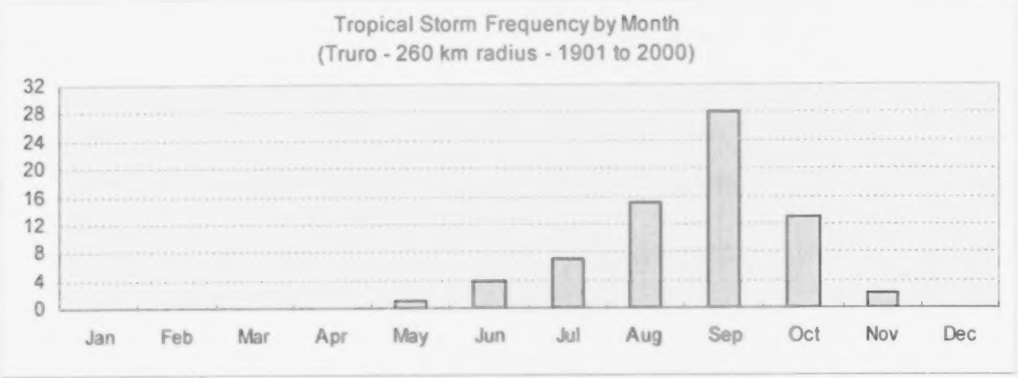
260 km Graphs - Frequency by Time-Periods (1901-2000)



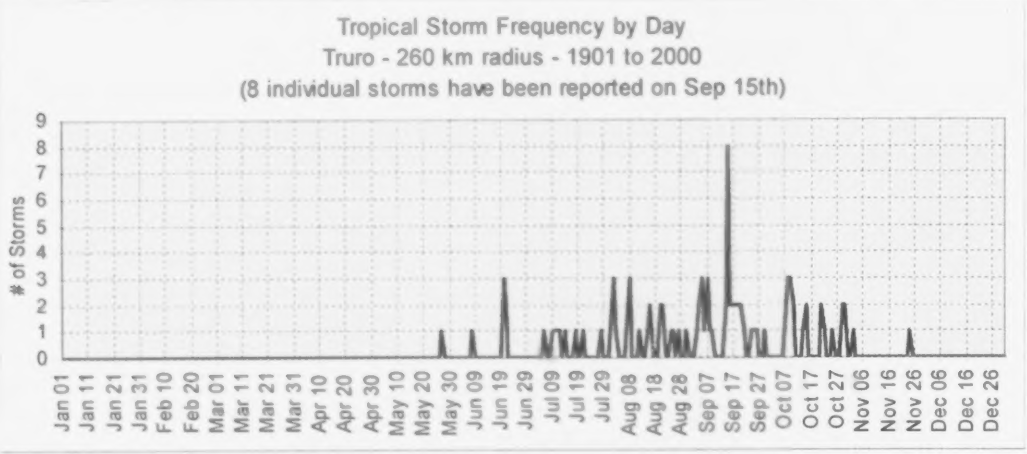




Note: Storms that span months were counted in both months


Tropical Storm Frequency by Month
(Truro - 260 km radius - 1901 to 2000)

Note: Storms will generally span more than one day. The storm is counted in each day


Tropical Storm Frequency by Day
Truro - 260 km radius - 1901 to 2000
(8 individual storms have been reported on Sep 15th)

Truro – Summary Statistics 260 km Radius (gale swath)

100 Yr	**TD**	**TS**	**G**	**S**	**S1**	**S2**	**S3**	**S4**	**S5**	**H**	**<H**	**ALL**	**Sys-Spd**
#	4	39	16	23	23	5	0	0	0	28	43	71	28.0
Return	25	2.6	6.3	4.3	4.3	20	NA	NA	NA	3.6	2.3	1.4	
50 Yr	**TD**	**TS**	**G**	**S**	**S1**	**S2**	**S3**	**S4**	**S5**	**H**	**<H**	**ALL**	**Sys-Spd**
#	2	24	7	17	13	1	0	0	0	14	26	40	28.4
Return	25	2.1	7.1	2.9	3.8	50	NA	NA	NA	3.6	1.9	1.3	

Truro – Summary Statistics 400 km Radius (trace precipitation swath)

100 Yr	TD	TS	G	S	S1	S2	S3	S4	S5	H	<H	ALL	Sys-Spd
#	10	53	23	30	34	9	1	0	0	44	63	107	27.3
Return	10	1.9	4.3	3.3	2.9	11.1	100	NA	NA	2.3	1.6	0.9	
50 Yr	TD	TS	G	S	S1	S2	S3	S4	S5	H	<H	ALL	Sys-Spd
#	5	32	10	22	20	2	1	0	0	23	37	60	28.8
Return	**10**	**1.6**	**5**	**2.3**	**2.5**	**25**	**50**	**NA**	**NA**	**2.2**	**1.4**	**0.8**	

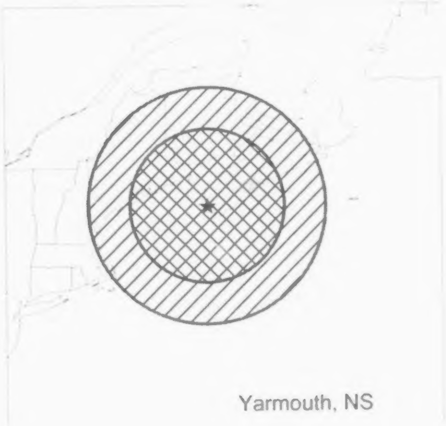
Truro – Storms That Tracked Within 400 km of Site (R) and within 260 km of the Site (R/W)

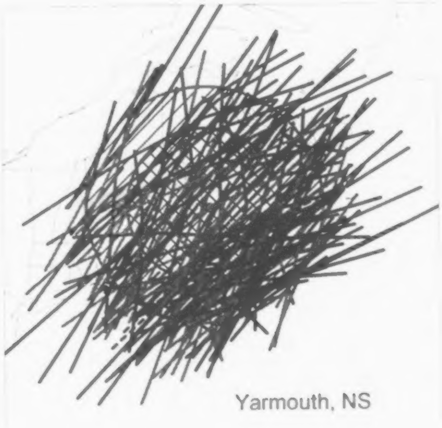
Name	Date	S#	MaxWind (kts)	SS Scale	AvgSysSpd (kts)	Pres (mb)	Comment	ENSO	R(km) R/W
Not Named	Sep 30, 1901	8	30	TD	24.4		E	Neutral	400 TD
Not Named	Sep 15, 1904	2	65	SS1	59.8		E	El Nino	260 R/W
Not Named	Aug 02, 1908	2	85	SS2	22.9			La Nina	260 R/W
Not Named	Sep 17, 1908	4	70	SS1	17.4			La Nina	400 R
Not Named	Nov 24, 1912	6	60	TS	36.8		E	Neutral	260 R/W
Not Named	Jul 22, 1916	2	55	TS	36.4			La Nina	400 R
Not Named	Sep 06, 1918	4	55	TS	19.4			El Nino	260 R/W
Not Named	Oct 01, 1923	2	85	SS2	13.8		E	Neutral	400 R
Not Named	Oct 26, 1923	4	30	TD	22.2		E	Neutral	400 TD
Not Named	Aug 26, 1924	2	90	SS2	35.6			La Nina	260 R/W
Not Named	Sep 04, 1924	3	70	SS1	25.9		E	La Nina	260 R/W
Not Named	Aug 08, 1926	2	75	SS1	25.0			Neutral	260 R/W
Not Named	Aug 24, 1927	1	90	SS2	53.1		E	Neutral	260 R/W
Not Named	Sep 09, 1932	4	85	SS2	13.8		E	Neutral	400 R
Not Named	Sep 17, 1932	5	35	TS	25.0		E	Neutral	260 R/W
Not Named	Sep 18, 1933	13	65	SS1	21.2		E	Neutral	260 R/W
Not Named	Oct 08, 1933	18	90	SS2	17.8		E	Neutral	260 R/W
Not Named	Oct 29, 1933	20	60	TS	14.0		E	Neutral	260 R/W
Not Named	Jun 20, 1934	2	40	TS	20.3		E	Neutral	260 R/W
Not Named	Oct 01, 1935	4	75	SS1	28.8		E	Neutral	400 R
Not Named	Sep 19, 1936	13	80	SS1	32.0			Neutral	260 R/W
Not Named	Sep 25, 1936	15	75	SS1	26.0		E	Neutral	260 R/W
Not Named	Aug 01, 1937	1	50	TS	14.1			Neutral	260 R/W
Not Named	Aug 08, 1937	2	40	TS	14.7			Neutral	260 R/W
Not Named	Sep 14, 1937	4	60	TS	26.7			Neutral	260 R/W
Not Named	Sep 26, 1937	7	80	SS1	22.8		E	Neutral	260 R/W
Not Named	Sep 29, 1937	8	35	TS	23.8		E	Neutral	260 R/W
Not Named	May 26, 1940	1	30	TD	15.9			El Nino	260 TD
Not Named	Sep 02, 1940	4	65	SS1	22.8			El Nino	260 R/W
Not Named	Sep 16, 1940	5	70	SS1	16.6			El Nino	260 R/W
Not Named	Sep 23, 1942	5	35	TS	11.8		E	La Nina	400 R
Not Named	Oct 18, 1942	9	35	TS	37.9			La Nina	400 R
Not Named	Sep 09, 1943	4	75	SS1	28.6			Neutral	260 R/W
Not Named	Sep 15, 1943	5	40	TS	23.4		E	Neutral	260 R/W
Not Named	Oct 17, 1943	9	40	TS	38.3		E	Neutral	400 R
Not Named	Aug 04, 1944	3	30	TD	9.1			La Nina	400 TD
Not Named	Sep 15, 1944	7	35	TS	40.1		E	La Nina	260 R/W
Not Named	Oct 22, 1944	11	45	TS	31.9		E	La Nina	260 R/W
Not Named	Jun 28, 1945	1	45	TS	12.6			Neutral	400 R
Not Named	Sep 19, 1945	9	25	TD	35.1		E	Neutral	260 TD
Not Named	Sep 15, 1946	4	65	SS1	29.3			Neutral	260 R/W
Not Named	Sep 01, 1948	3	55	TS	22.2		E	Neutral	400 R
Not Named	Aug 29, 1949	2	35	TS	38.3		E	La Nina	400 R
Not Named	Oct 19, 1949	11	45	TS	14.5		E	La Nina	400 R
Able	Aug 21, 1950	1	65	SS1	26.8			Neutral	260 R/W

Name	Date	S#	MaxWind (kts)	SS Scale	AvgSysSpd (kts)	Pres (mb)	Comment	ENSO	R(km) R/W
Dog	Sep 12, 1950	4	60	TS	12.8		E	Neutral	400 R
George	Oct 05, 1950	7	85	SS2	35.9			Neutral	400 R
Not Named	Feb 04, 1952	1	50	TS	30.9		E	Neutral	400 R
Barbara	Aug 15, 1953	2	75	SS1	34.0			Neutral	260 R/W
Carol	Sep 07, 1953	4	70	SS1	32.9			Neutral	260 R/W
Not Named	Oct 07, 1953	10	60	TS	20.8		E	Neutral	260 R/W
Edna	Sep 11, 1954	5	80	SS1	44.1			La Nina	400 R
Diane	Aug 20, 1955	3	35	TS	24.2			La Nina	400 R
Ione	Sep 21, 1955	9	75	SS1	35.5			La Nina	400 R
Daisy	Aug 29, 1958	4	90	SS2	31.4	982		Neutral	400 R
Helene	Sep 29, 1958	8	70	SS1	41.0	963		Neutral	400 R
Not Named	Jun 19, 1959	3	70	SS1	17.0		E	Neutral	260 R/W
Cindy	Jul 11, 1959	4	50	TS	29.7		E	Neutral	260 R/W
Gracie	Oct 02, 1959	8	25	TD	32.3		E	Neutral	400 TD
Cleo	Aug 20, 1960	4	80	SS1	21.1			Neutral	260 R/W
Not Named	Sep 15, 1961	6	35	TS	60.6			Neutral	260 R/W
Frances	Oct 09, 1961	7	40	TS	22.1		E	Neutral	260 R/W
Gerda	Oct 20, 1961	8	60	TS	16.3			Neutral	260 R/W
Alma	Sep 02, 1962	1	25	TD	36.9	1002	E	Neutral	400 TD
Daisy	Oct 07, 1962	4	65	SS1	14.9			Neutral	260 R/W
Ginny	Oct 29, 1963	8	95	SS2	29.1	958		El Nino	260 R/W
Dora	Sep 14, 1964	6	55	TS	28.5		E	La Nina	260 R/W
Gladys	Sep 24, 1964	9	65	SS1	36.2	982		La Nina	260 R/W
Becky	Jul 03, 1966	2	45	TS	14.4		E	Neutral	400 R
Celia	Jul 21, 1966	3	70	SS1	36.8	998		Neutral	260 R/W
Gladys	Oct 21, 1968	8	65	SS1	30.1			Neutral	260 R/W
Blanche	Aug 12, 1969	2	75	SS1	42.5			El Nino	260 R/W
Gerda	Sep 09, 1969	7	110	SS3	44.6	979		El Nino	400 R
Arlene	Jul 06, 1971	1	55	TS	27.1	1000		La Nina	400 R
Beth	Aug 15, 1971	3	75	SS1	15.0			La Nina	260 R/W
Carrie	Sep 04, 1972	4	50	TS	12.2		E	El Nino	260 R/W
Alice	Jul 06, 1973	1	65	SS1	28.6	995		La Nina	260 R/W
Alfa	Aug 01, 1973	2	25	TD	14.3	1008	S	La Nina	400 TD
Subtrop 3	Aug 14, 1974	3	50	TS	17.9	992	S	Neutral	400 R
Dolly	Sep 05, 1974	7	40	TS	31.7			Neutral	260 R/W
Blanche	Jul 28, 1975	2	70	SS1	33.5	980		La Nina	260 R/W
Evelyn	Oct 15, 1977	5	70	SS1	26.3	996		Neutral	260 R/W
David	Sep 07, 1979	4	50	TS	34.3	988	E	Neutral	260 R/W
Subtrop 1	Oct 24, 1979	9	65	SS1	37.5	985	S	Neutral	260 R/W
Subtrop 3	Nov 17, 1981	12	50	TS	17.8	985	S	Neutral	400 R
Subtrop 1	Jun 20, 1982	2	60	TS	39.9	992	S	El Nino	260 R/W
Diana	Sep 15, 1984	5	60	TS	38.8	992		Neutral	260 R/W
Ana	Jul 19, 1985	1	60	TS	24.4	996		Neutral	260 R/W
Alberto	Aug 07, 1988	1	35	TS	26.5	1002		La Nina	260 R/W
Chris	Aug 30, 1988	3	25	TD	38.1	1008		La Nina	260 TD
Dean	Aug 08, 1989	4	75	SS1	31.4	975		Neutral	400 R
Bertha	Aug 02, 1990	2	70	SS1	19.4	973		Neutral	260 R/W
Lili	Oct 14, 1990	12	50	TS	35.0	995		Neutral	260 R/W
Bob	Aug 20, 1991	2	60	TS	24.6	977		El Nino	260 R/W
Unnamed	Nov 02, 1991	8	60	TS	21.4	988		El Nino	260 R/W
Allison	Jun 08, 1995	1	50	TS	22.0	982	E	Neutral	260 R/W
Barry	Jul 09, 1995	2	50	TS	22.3	995		Neutral	260 R/W
Bertha	Jul 14, 1996	2	55	TS	31.0	995		Neutral	260 R/W
Edouard	Sep 03, 1996	5	55	TS	15.9	985	E	Neutral	400 R
Hortense	Sep 14, 1996	8	75	SS1	22.9	960		Neutral	260 R/W

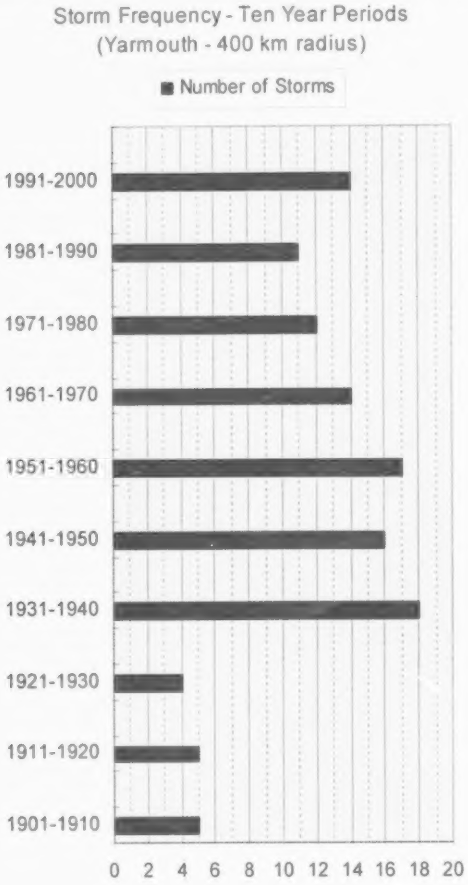
Name	Date	S#	MaxWind (kts)	SS Scale	AvgSysSpd (kts)	Pres (mb)	Comment	ENSO	R(km) R/W
Josephine	Oct 09, 1996	10	45	TS	30.8	980	E	Neutral	260 R/W
Bonnie	Aug 29, 1998	2	45	TS	31.6	1000		La Nina	400 R
Earl	Sep 05, 1998	5	50	TS	43.0	998	E	La Nina	400 R
Floyd	Sep 17, 1999	6	45	TS	18.9	985	E	La Nina	260 R/W
Gordon	Sep 20, 2000	7	30	TD	16.1	1005	E	La Nina	260 TD
Leslie	Oct 08, 2000	12	40	TS	39.7	1004	E	La Nina	400 R
Subtrop	Oct 29, 2000	15	55	TS	30.1	978	S	La Nina	400 R

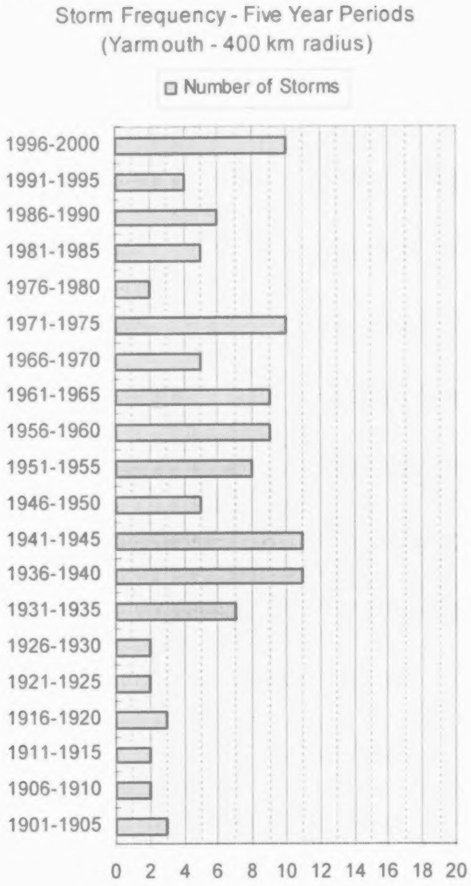
Yarmouth

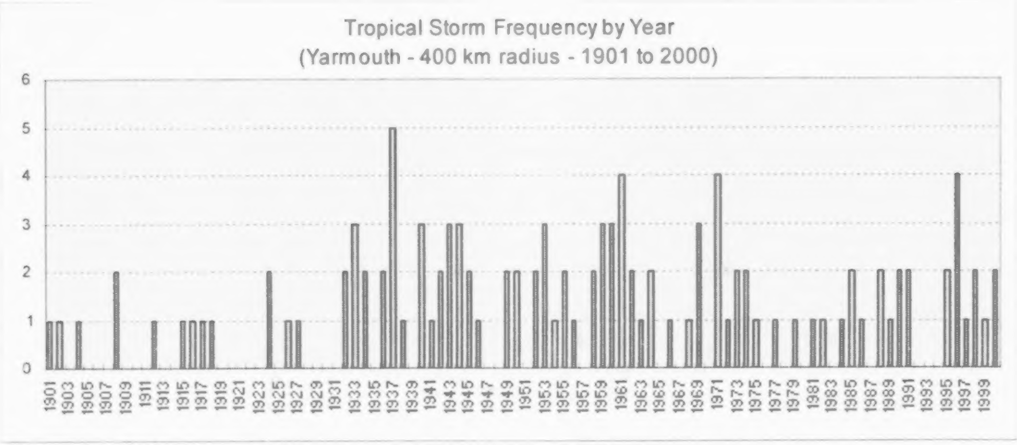




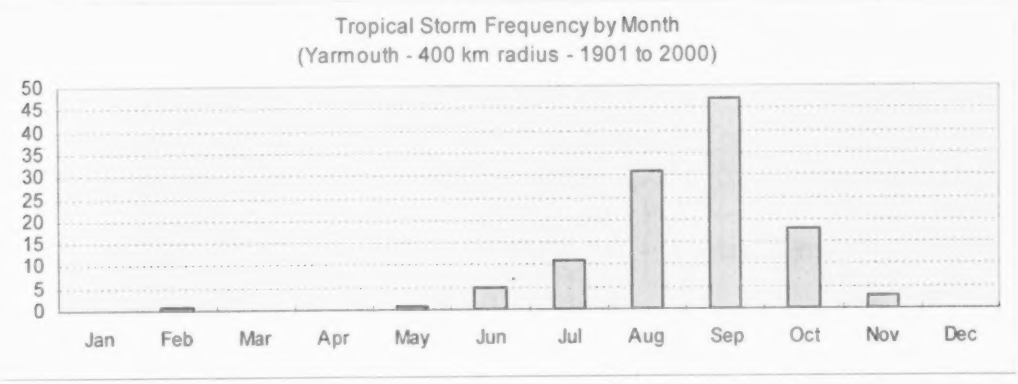
400 km Graphs - Frequency by Time-Periods (1901-2000)



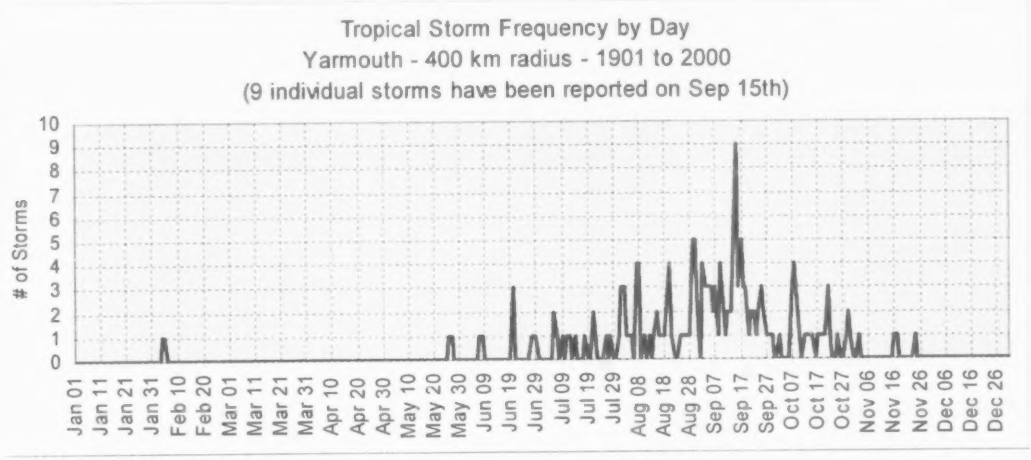




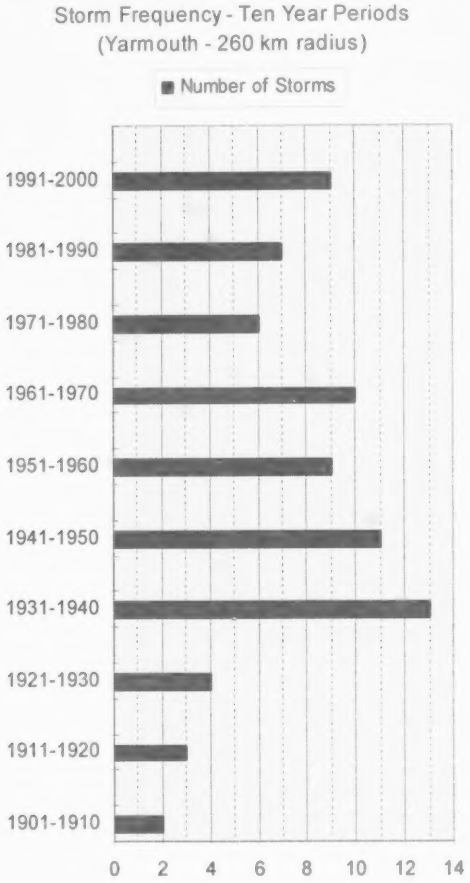
Note: Storms that span months were counted in both months

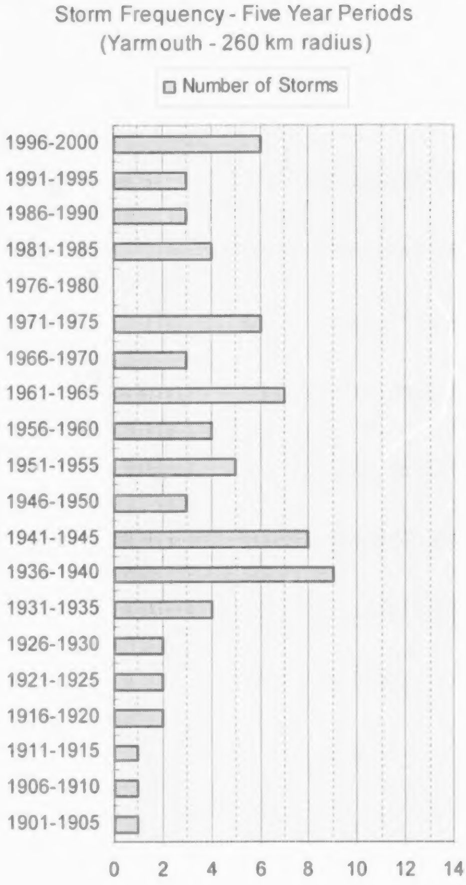


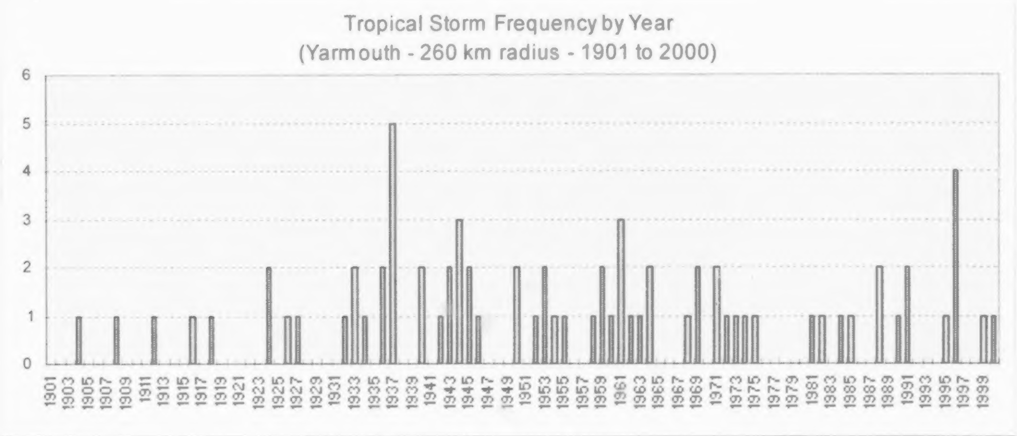
Note: Storms will generally span more than one day. The storm is counted in each day



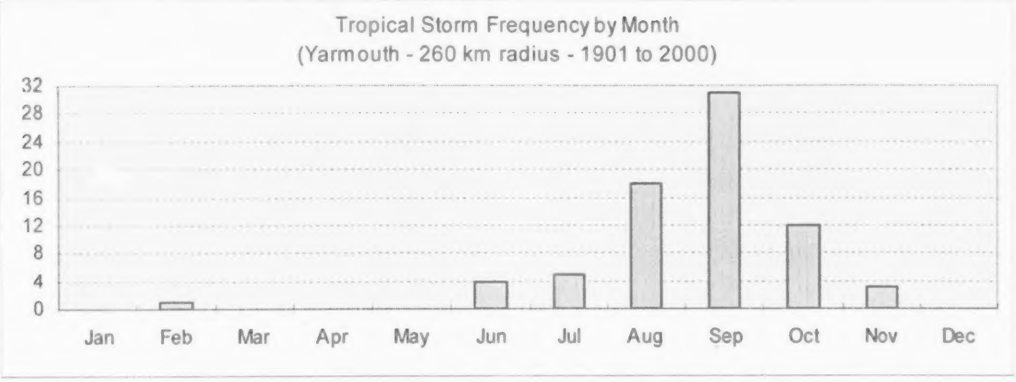
260 km Graphs - Frequency by Time-Periods (1901-2000)


Storm Frequency - Ten Year Periods (Yarmouth - 260 km radius)

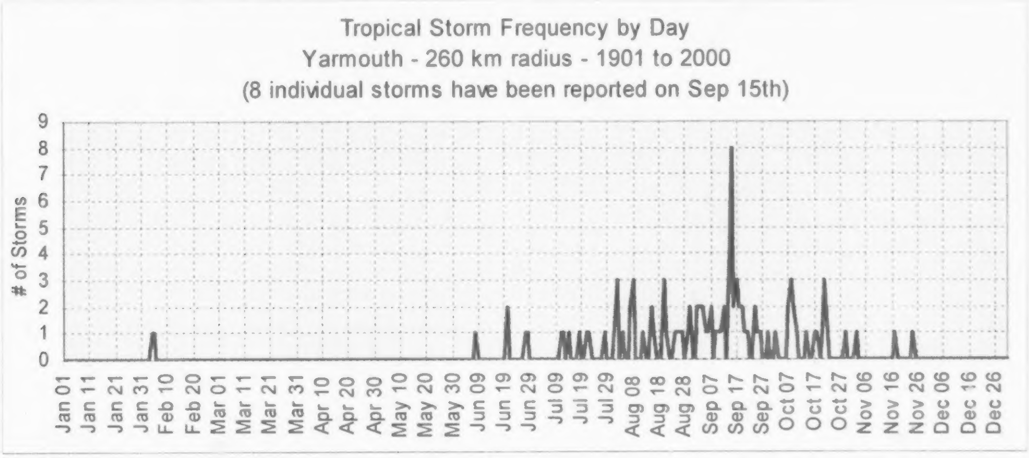

Storm Frequency - Five Year Periods (Yarmouth - 260 km radius)


Tropical Storm Frequency by Year (Yarmouth - 260 km radius - 1901 to 2000)

Note: Storms that span months were counted in both months



Note: Storms will generally span more than one day. The storm is counted in each day



Yarmouth – Summary Statistics 260 km Radius (gale swath)

100 Yr	**TD**	**TS**	**G**	**S**	**S1**	**S2**	**S3**	**S4**	**S5**	**H**	**<H**	**ALL**	**Sys-Spd**
#	5	35	15	20	25	7	2	0	0	34	40	74	27.2
Return	20	2.9	6.7	5	4	14.3	50	NA	NA	2.9	2.5	1.4	
50 Yr	**TD**	**TS**	**G**	**S**	**S1**	**S2**	**S3**	**S4**	**S5**	**H**	**<H**	**ALL**	**Sys-Spd**
#	4	21	6	15	12	3	1	0	0	16	25	41	27.7
Return	12.5	2.4	8.3	3.3	4.2	16.7	50	NA	NA	3.1	2	1.2	

Yarmouth – Summary Statistics 400 km Radius (trace precipitation swath)

100 Yr	**TD**	**TS**	**G**	**S**	**S1**	**S2**	**S3**	**S4**	**S5**	**H**	**<H**	**ALL**	**Sys-Spd**
#	10	55	26	29	39	9	3	0	0	51	65	116	26.1
Return	10	1.8	3.8	3.4	2.6	11.1	33.3	NA	NA	2	1.5	0.9	
50 Yr	**TD**	**TS**	**G**	**S**	**S1**	**S2**	**S3**	**S4**	**S5**	**H**	**<H**	**ALL**	**Sys-Spd**
#	6	34	9	25	22	4	2	0	0	28	40	68	26.9
Return	8.3	1.5	5.6	2	2.3	12.5	25	NA	NA	1.8	1.3	0.7	

Yarmouth – Storms That Tracked Within 400 km of Site (R) and within 260 km of the Site (R/W)

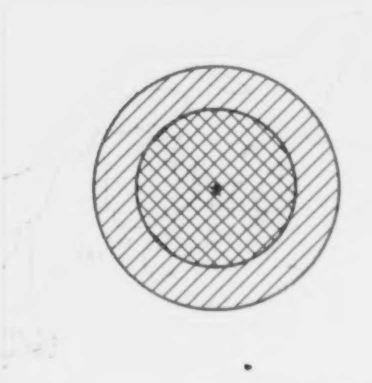
Name	Date	S#	MaxWind (kts)	SS Scale	AvgSysSpd (kts)	Pres (mb)	Comment	ENSO	R(km) R/W
Not Named	Sep 19, 1901	6	35	TS	28.1		E	Neutral	400 R
Not Named	Oct 12, 1902	4	35	TS	32.2		E	El Nino	400 R
Not Named	Sep 15, 1904	2	65	SS1	52.9		E	El Nino	260 R/W
Not Named	Aug 02, 1908	2	85	SS2	22.4			La Nina	260 R/W
Not Named	Sep 17, 1908	4	70	SS1	13.5			La Nina	400 R
Not Named	Nov 24, 1912	6	65	SS1	35.5			Neutral	260 R/W
Not Named	Aug 05, 1915	1	15	TD	10.4			Neutral	400 TD
Not Named	Jul 21, 1916	2	75	SS1	24.1			La Nina	260 R/W
Not Named	Aug 10, 1917	1	30	TD	26.0			Neutral	400 TD
Not Named	Sep 06, 1918	4	65	SS1	20.3			El Nino	260 R/W
Not Named	Aug 26, 1924	2	90	SS2	35.6			La Nina	260 R/W
Not Named	Sep 04, 1924	3	75	SS1	24.9		E	La Nina	260 R/W
Not Named	Aug 07, 1926	2	80	SS1	23.6			Neutral	260 R/W
Not Named	Aug 24, 1927	1	90	SS2	53.1		E	Neutral	260 R/W
Not Named	Sep 09, 1932	4	95	SS2	15.4			Neutral	400 R
Not Named	Sep 17, 1932	5	35	TS	25.1		E	Neutral	260 R/W
Not Named	Sep 17, 1933	13	70	SS1	23.3			Neutral	260 R/W
Not Named	Oct 07, 1933	18	100	SS3	14.7			Neutral	260 R/W
Not Named	Oct 28, 1933	20	60	TS	17.3			Neutral	400 R
Not Named	Jun 20, 1934	2	40	TS	21.8		E	Neutral	260 R/W
Not Named	Sep 09, 1934	6	40	TS	25.5		E	Neutral	400 R
Not Named	Sep 19, 1936	13	80	SS1	30.2			Neutral	260 R/W
Not Named	Sep 24, 1936	15	75	SS1	23.0			Neutral	260 R/W
Not Named	Aug 01, 1937	1	55	TS	15.7			Neutral	260 R/W
Not Named	Aug 07, 1937	2	45	TS	13.9			Neutral	260 R/W
Not Named	Sep 14, 1937	4	60	TS	26.7			Neutral	260 R/W
Not Named	Sep 26, 1937	7	80	SS1	18.8		E	Neutral	260 R/W
Not Named	Sep 29, 1937	8	40	TS	22.6		E	Neutral	260 R/W
Not Named	Oct 25, 1938	7	35	TS	47.7		E	La Nina	400 R
Not Named	May 26, 1940	1	30	TD	14.3			El Nino	400 TD
Not Named	Sep 02, 1940	4	70	SS1	19.1			El Nino	260 R/W
Not Named	Sep 16, 1940	5	70	SS1	19.6			El Nino	260 R/W
Not Named	Sep 25, 1941	3	35	TS	19.4			Neutral	400 R
Not Named	Sep 22, 1942	5	35	TS	18.1		E	La Nina	400 R
Not Named	Oct 18, 1942	9	35	TS	37.9			La Nina	260 R/W
Not Named	Sep 09, 1943	4	75	SS1	26.4			Neutral	400 R
Not Named	Sep 15, 1943	5	40	TS	23.0		E	Neutral	260 R/W
Not Named	Oct 17, 1943	9	40	TS	38.3		E	Neutral	260 R/W
Not Named	Aug 04, 1944	3	35	TS	11.2			La Nina	260 R/W
Not Named	Sep 15, 1944	7	65	SS1	36.8	966		La Nina	260 R/W
Not Named	Oct 21, 1944	11	45	TS	32.2		E	La Nina	260 R/W
Not Named	Jun 27, 1945	1	55	TS	9.9			Neutral	260 R/W
Not Named	Sep 19, 1945	9	25	TD	30.7		E	Neutral	260 TD
Not Named	Sep 15, 1946	4	70	SS1	26.1			Neutral	260 R/W
Not Named	Aug 29, 1949	2	35	TS	38.3		E	La Nina	400 R

Name	Date	S#	MaxWind (kts)	SS Scale	AvgSysSpd (kts)	Pres (mb)	Comment	ENSO	R(km) R/W
Not Named	Oct 19, 1949	11	45	TS	14.5		E	La Nina	400 R
Able	Aug 21, 1950	1	90	SS2	28.7			Neutral	260 R/W
Dog	Sep 12, 1950	4	65	SS1	13.5		E	Neutral	260 R/W
Not Named	Feb 04, 1952	1	50	TS	31.1		E	Neutral	260 R/W
Able	Sep 02, 1952	2	25	TD	10.3			Neutral	400 TD
Barbara	Aug 15, 1953	2	75	SS1	29.3			Neutral	260 R/W
Carol	Sep 07, 1953	4	70	SS1	32.9			Neutral	260 R/W
Not Named	Oct 07, 1953	10	60	TS	18.9		E	Neutral	400 R
Edna	Sep 11, 1954	5	80	SS1	45.8			La Nina	260 R/W
Diane	Aug 19, 1955	3	35	TS	18.4			La Nina	260 R/W
Ione	Sep 21, 1955	9	75	SS1	42.3			La Nina	400 R
Betsy	Aug 18, 1956	3	65	SS1	22.3			La Nina	400 R
Becky	Aug 17, 1958	2	25	TD	39.8		E	Neutral	400 TD
Daisy	Aug 29, 1958	4	105	SS3	28.1	977		Neutral	260 R/W
Not Named	Jun 20, 1959	3	60	TS	11.5		E	Neutral	400 R
Cindy	Jul 11, 1959	4	50	TS	30.0			Neutral	260 R/W
Gracie	Oct 02, 1959	8	25	TD	30.3		E	Neutral	260 TD
Brenda	Jul 31, 1960	3	40	TS	32.3			Neutral	400 R
Cleo	Aug 20, 1960	4	80	SS1	22.2			Neutral	260 R/W
Donna	Sep 13, 1960	5	75	SS1	38.8			Neutral	400 R
Esther	Sep 22, 1961	5	50	TS	16.5			Neutral	400 R
Not Named	Sep 15, 1961	6	35	TS	51.4			Neutral	260 R/W
Frances	Oct 08, 1961	7	95	SS2	15.1			Neutral	260 R/W
Gerda	Oct 20, 1961	8	60	TS	17.5			Neutral	260 R/W
Alma	Aug 29, 1962	1	80	SS1	10.1	990		Neutral	400 R
Daisy	Oct 07, 1962	4	70	SS1	15.6	975		Neutral	260 R/W
Ginny	Oct 29, 1963	8	95	SS2	30.0			El Nino	260 R/W
Dora	Sep 14, 1964	6	55	TS	30.6		E	La Nina	260 R/W
Gladys	Sep 24, 1964	9	65	SS1	28.4	980		La Nina	260 R/W
Celia	Jul 21, 1966	3	70	SS1	36.2	998		Neutral	400 R
Gladys	Oct 21, 1968	8	65	SS1	31.3			Neutral	260 R/W
Anna	Aug 03, 1969	1	55	TS	32.3	1002		El Nino	400 R
Blanche	Aug 12, 1969	2	75	SS1	40.5			El Nino	260 R/W
Gerda	Sep 09, 1969	7	110	SS3	44.6	979		El Nino	260 R/W
Arlene	Jul 06, 1971	1	55	TS	24.9	1000		La Nina	400 R
Beth	Aug 15, 1971	3	75	SS1	14.1	977		La Nina	260 R/W
Doria	Aug 28, 1971	5	45	TS	24.8			La Nina	400 R
Heidi	Sep 14, 1971	9	50	TS	20.5			La Nina	260 R/W
Carrie	Sep 03, 1972	4	60	TS	12.4	993		El Nino	260 R/W
Alice	Jul 06, 1973	1	65	SS1	25.9	995		La Nina	400 R
Alfa	Aug 01, 1973	2	30	TD	12.3		S	La Nina	260 TD
Subtrop 3	Aug 14, 1974	3	50	TS	12.7	992	S	Neutral	400 R
Dolly	Sep 04, 1974	7	40	TS	33.9			Neutral	260 R/W
Blanche	Jul 28, 1975	2	75	SS1	29.0	980		La Nina	260 R/W
Evelyn	Oct 15, 1977	5	70	SS1	32.6	996		Neutral	400 R
David	Sep 07, 1979	4	50	TS	31.8	988	E	Neutral	400 R
Subtrop 3	Nov 16, 1981	12	55	TS	13.6	981	S	Neutral	260 R/W
Subtrop 1	Jun 20, 1982	2	60	TS	44.9	992	S	El Nino	260 R/W
Diana	Sep 15, 1984	5	60	TS	39.7	992		Neutral	260 R/W
Ana	Jul 18, 1985	1	55	TS	22.5	996		Neutral	260 R/W
Gloria	Sep 27, 1985	7	75	SS1	35.7	964		Neutral	400 R
Charley	Aug 19, 1986	3	50	TS	13.7	999		El Nino	400 R
Alberto	Aug 07, 1988	1	35	TS	22.5	1002		La Nina	260 R/W
Chris	Aug 30, 1988	3	25	TD	37.3	1008		La Nina	260 TD
Dean	Aug 07, 1989	4	80	SS1	27.4	972		Neutral	400 R

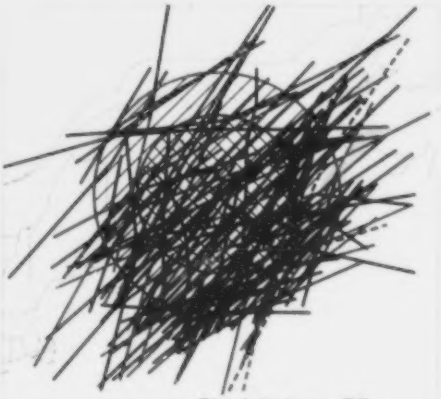
Name	Date	S#	MaxWind (kts)	SS Scale	AvgSysSpd (kts)	Pres (mb)	Comment	ENSO	R(km) R/W
Bertha	Aug 01, 1990	2	65	SS1	15.8	977		Neutral	400 R
Lili	Oct 14, 1990	12	50	TS	34.4	995		Neutral	260 R/W
Bob	Aug 19, 1991	2	85	SS2	24.7	964		El Nino	260 R/W
Unnamed	Nov 02, 1991	8	65	SS1	23.9	981		El Nino	260 R/W
Allison	Jun 08, 1995	1	50	TS	20.0	982	E	Neutral	260 R/W
Barry	Jul 09, 1995	2	50	TS	21.8	996		Neutral	400 R
Bertha	Jul 14, 1996	2	60	TS	29.0	994		Neutral	260 R/W
Edouard	Sep 02, 1996	5	70	SS1	12.0	962		Neutral	260 R/W
Hortense	Sep 14, 1996	8	85	SS2	27.4	960		Neutral	260 R/W
Josephine	Oct 09, 1996	10	45	TS	27.7	980	E	Neutral	260 R/W
Danny	Jul 26, 1997	5	45	TS	19.3	998	E	El Nino	400 R
Bonnie	Aug 29, 1998	2	45	TS	30.0	999		La Nina	400 R
Earl	Sep 05, 1998	5	50	TS	42.1	998	E	La Nina	400 R
Floyd	Sep 17, 1999	6	50	TS	17.9	983		La Nina	260 R/W
Gordon	Sep 20, 2000	7	30	TD	17.4	1005	E	La Nina	260 TD
Helene	Sep 25, 2000	8	60	TS	46.3	986		La Nina	400 R

Prince Edward Island

Charlottetown

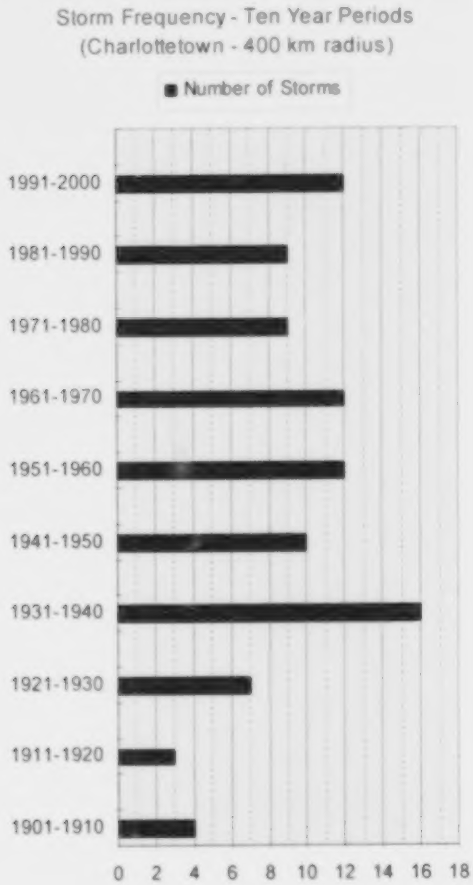


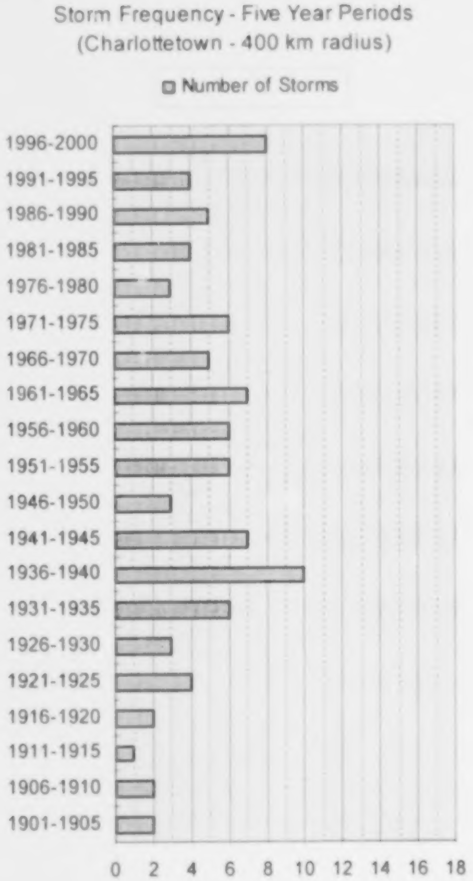
Charlottetown, PE

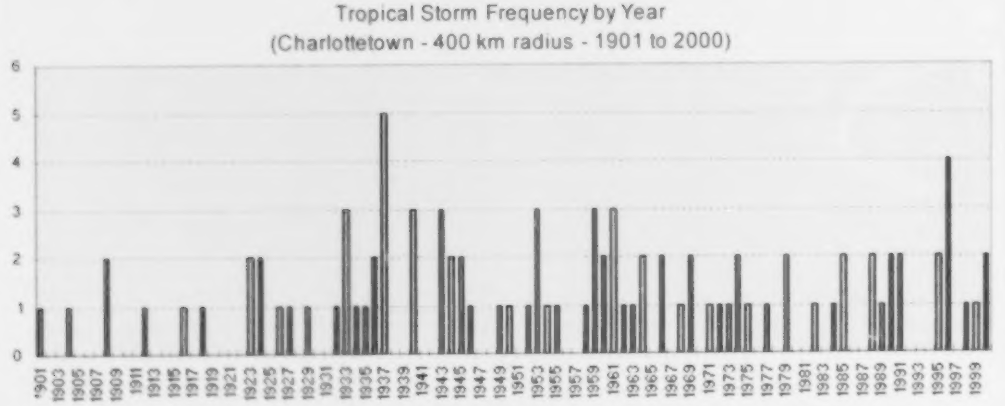


Charlottetown, PE

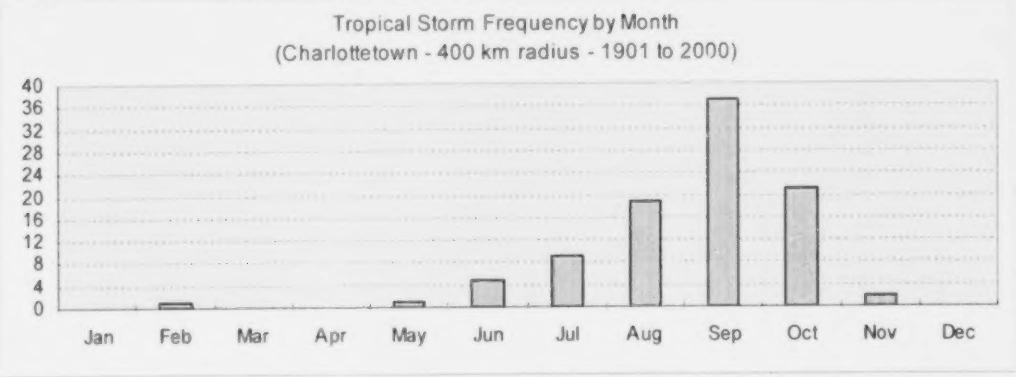
400 km Graphs - Frequency by Time-Periods (1901-2000)


Storm Frequency - Ten Year Periods
(Charlottetown - 400 km radius)


Storm Frequency - Five Year Periods
(Charlottetown - 400 km radius)

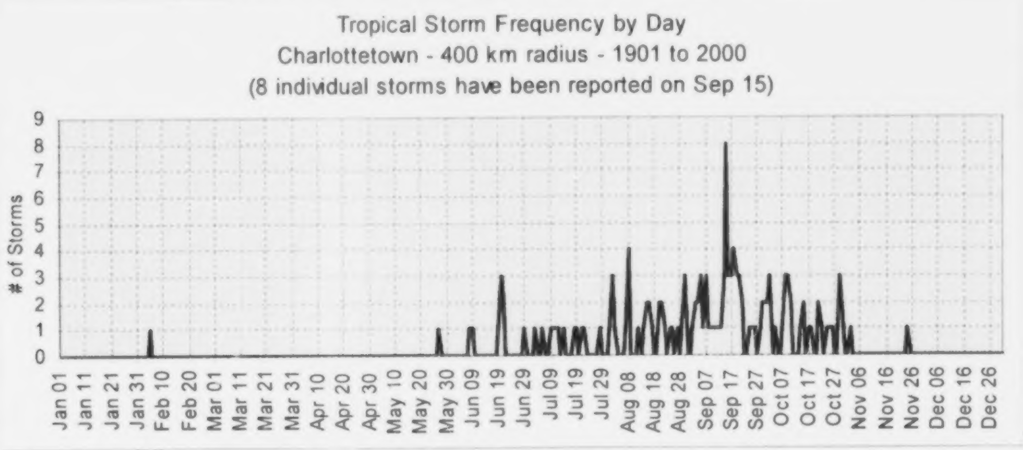

Tropical Storm Frequency by Year
(Charlottetown - 400 km radius - 1901 to 2000)

Note: Storms that span months were counted in both months



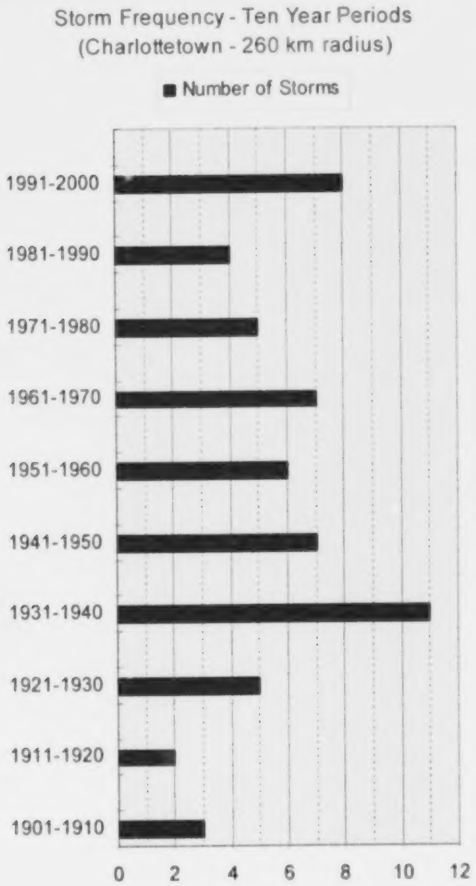
Tropical Storm Frequency by Month
(Charlottetown - 400 km radius - 1901 to 2000)

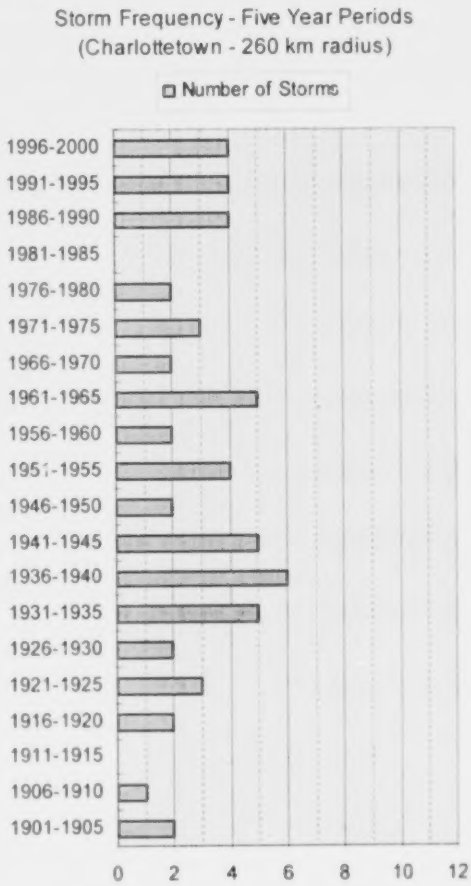
Note: Storms will generally span more than one day. The storm is counted in each day

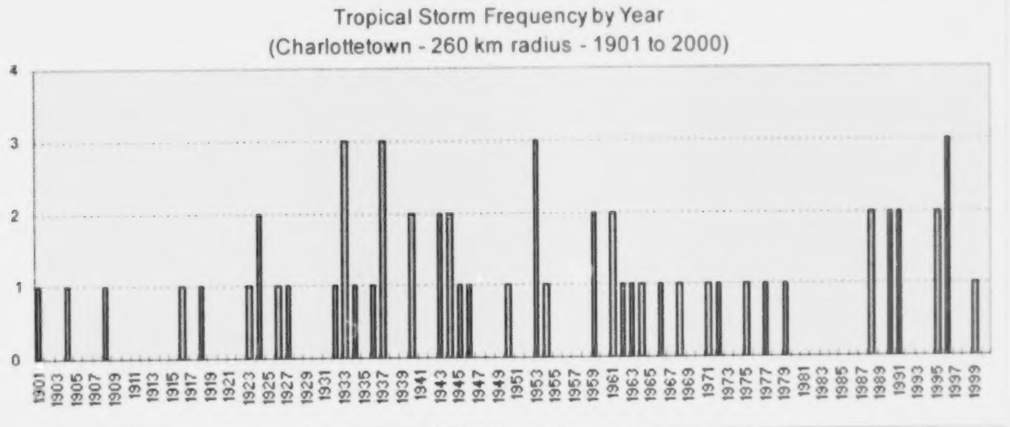


Tropical Storm Frequency by Day
Charlottetown - 400 km radius - 1901 to 2000
(8 individual storms have been reported on Sep 15)

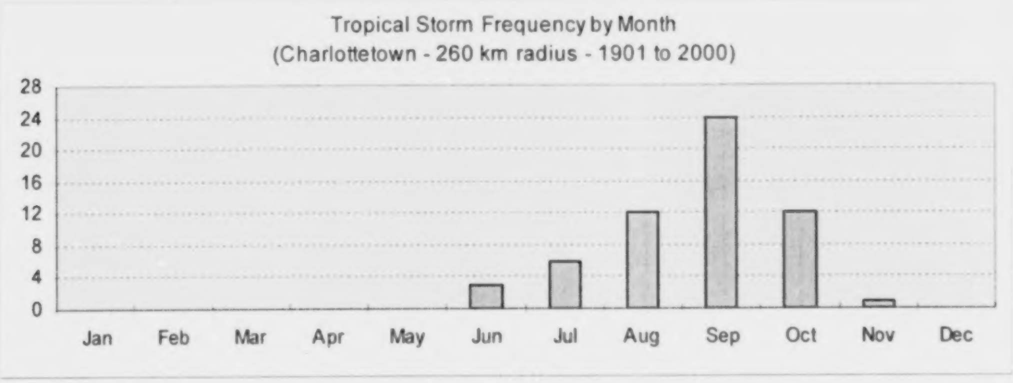
260 km Graphs - Frequency by Time-Periods (1901-2000)


Storm Frequency - Ten Year Periods
(Charlottetown - 260 km radius)

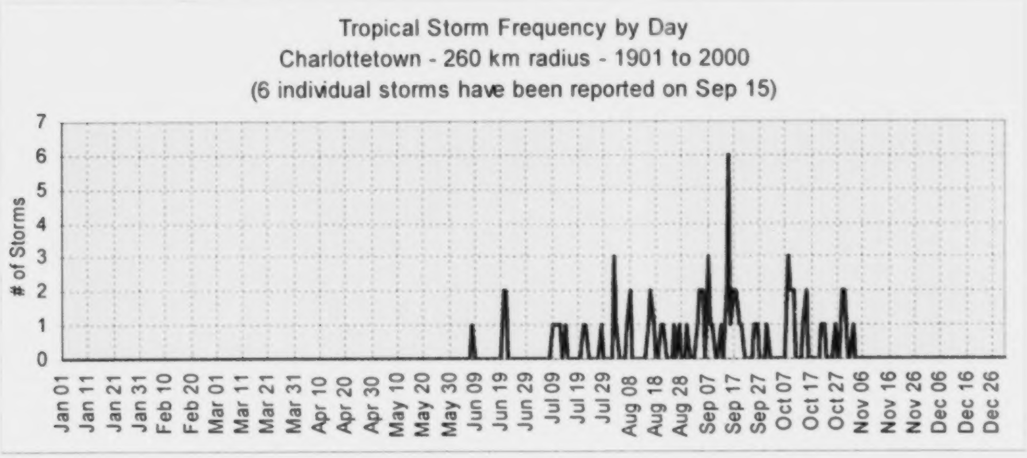

Storm Frequency - Five Year Periods
(Charlottetown - 260 km radius)


Tropical Storm Frequency by Year
(Charlottetown - 260 km radius - 1901 to 2000)

Note: Storms that span months were counted in both months



Note: Storms will generally span more than one day. The storm is counted in each day



Charlottetown – Summary Statistics 260 km Radius (gale swath)

100 Yr	**TD**	**TS**	**G**	**S**	**S1**	**S2**	**S3**	**S4**	**S5**	**H**	**<H**	**ALL**	**Sys-Spd**
#	4	30	13	17	19	5	0	0	0	24	34	58	27.8
Return	25	3.3	7.7	5.9	5.3	20	NA	NA	NA	4.2	2.9	1.7	
50 Yr	**TD**	**TS**	**G**	**S**	**S1**	**S2**	**S3**	**S4**	**S5**	**H**	**<H**	**ALL**	**Sys-Spd**
#	1	17	7	10	11	1	0	0	0	12	18	30	28.3
Return	50	2.9	7.1	5	4.5	50	NA	NA	NA	4.2	2.8	1.7	

Charlottetown – Summary Statistics 400 km Radius (trace precipitation swath)

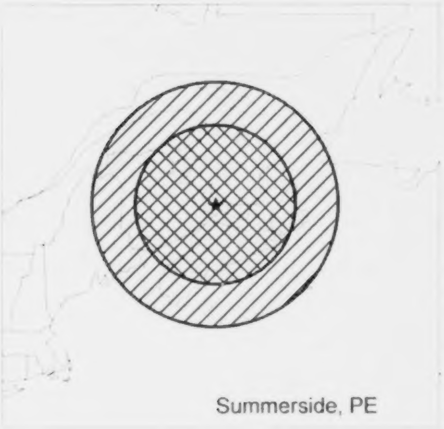
100 Yr	TD	TS	G	S	S1	S2	S3	S4	S5	H	<H	ALL	Sys-Spd
#	8	49	21	28	31	6	0	0	0	37	57	94	28.6
Return	12.5	2	4.8	3.6	3.2	16.7	NA	NA	NA	2.7	1.8	1.1	
50 Yr	**TD**	**TS**	**G**	**S**	**S1**	**S2**	**S3**	**S4**	**S5**	**H**	**<H**	**ALL**	**Sys-Spd**
#	3	32	10	22	17	2	0	0	0	19	35	54	29.1
Return	16.7	1.6	5	2.3	2.9	25	NA	NA	NA	2.6	1.4	0.9	

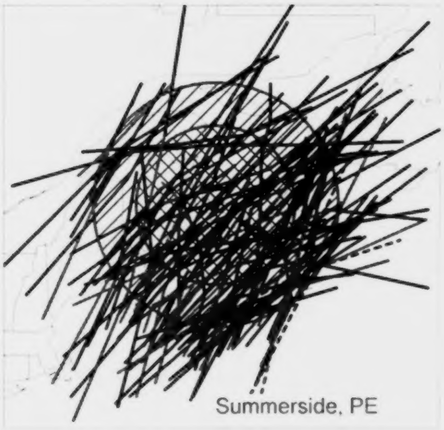
Charlottetown – Storms That Tracked Within 400 km of Site (R) and within 260 km of the Site (R/W)

Name	Date	S#	MaxWind (kts)	SS Scale	AvgSysSpd (kts)	Pres (mb)	Comment	ENSO	R(km) R/W
Not Named	Sep 30, 1901	8	30	TD	28.2		E	Neutral	260 TD
Not Named	Sep 15, 1904	2	65	SS1	59.8		E	El Nino	260 R/W
Not Named	Aug 02, 1908	2	85	SS2	22.9			La Nina	260 R/W
Not Named	Sep 18, 1908	4	70	SS1	21.4			La Nina	400 R
Not Named	Nov 24, 1912	6	60	TS	36.8		E	Neutral	400 R
Not Named	Jul 22, 1916	2	55	TS	36.4			La Nina	260 R/W
Not Named	Sep 06, 1918	4	55	TS	19.4			El Nino	260 R/W
Not Named	Oct 01, 1923	2	80	SS1	13.8		E	Neutral	400 R
Not Named	Oct 26, 1923	4	30	TD	22.2		E	Neutral	260 TD
Not Named	Aug 27, 1924	2	85	SS2	33.1		E	La Nina	260 R/W
Not Named	Sep 04, 1924	3	70	SS1	26.1		E	La Nina	260 R/W
Not Named	Aug 08, 1926	2	75	SS1	25.0			Neutral	260 R/W
Not Named	Aug 24, 1927	1	90	SS2	50.6		E	Neutral	260 R/W
Not Named	Oct 04, 1929	2	25	TD	62.0		E	El Nino	400 TD
Not Named	Sep 17, 1932	5	35	TS	25.0		E	Neutral	260 R/W
Not Named	Sep 18, 1933	13	65	SS1	19.8		E	Neutral	260 R/W
Not Named	Oct 08, 1933	18	90	SS2	17.8		E	Neutral	260 R/W
Not Named	Oct 29, 1933	20	60	TS	12.8		E	Neutral	260 R/W
Not Named	Jun 20, 1934	2	40	TS	20.3		E	Neutral	260 R/W
Not Named	Oct 02, 1935	4	65	SS1	32.5		E	Neutral	400 R
Not Named	Sep 19, 1936	13	75	SS1	32.4			Neutral	400 R
Not Named	Sep 25, 1936	15	75	SS1	26.0		E	Neutral	260 R/W
Not Named	Aug 01, 1937	1	45	TS	12.5			Neutral	260 R/W
Not Named	Aug 08, 1937	2	40	TS	16.9			Neutral	400 R
Not Named	Sep 14, 1937	4	55	TS	26.5			Neutral	260 R/W
Not Named	Sep 26, 1937	7	80	SS1	25.2		E	Neutral	260 R/W
Not Named	Sep 29, 1937	8	35	TS	24.3		E	Neutral	400 R
Not Named	May 27, 1940	1	25	TD	17.5			El Nino	400 TD
Not Named	Sep 02, 1940	4	65	SS1	22.8			El Nino	260 R/W
Not Named	Sep 17, 1940	5	65	SS1	16.7			El Nino	260 R/W
Not Named	Sep 09, 1943	4	70	SS1	30.5			Neutral	260 R/W
Not Named	Sep 15, 1943	5	40	TS	23.4		E	Neutral	260 R/W
Not Named	Oct 17, 1943	9	40	TS	38.3		E	Neutral	400 R
Not Named	Sep 15, 1944	7	35	TS	40.1		E	La Nina	260 R/W
Not Named	Oct 22, 1944	11	45	TS	31.9		E	La Nina	260 R/W
Not Named	Jun 29, 1945	1	40	TS	16.2		E	Neutral	400 R
Not Named	Sep 19, 1945	9	25	TD	35.1		E	Neutral	260 TD
Not Named	Sep 15, 1946	4	60	TS	31.0		E	Neutral	260 R/W
Not Named	Aug 29, 1949	2	35	TS	38.3		E	La Nina	400 R
Able	Aug 21, 1950	1	65	SS1	26.8			Neutral	260 R/W
Not Named	Feb 05, 1952	1	45	TS	30.5		E	Neutral	400 R
Barbara	Aug 15, 1953	2	75	SS1	34.0			Neutral	260 R/W
Carol	Sep 07, 1953	4	65	SS1	31.9			Neutral	260 R/W
Not Named	Oct 07, 1953	10	60	TS	21.5		E	Neutral	260 R/W
Edna	Sep 11, 1954	5	80	SS1	44.1			La Nina	260 R/W

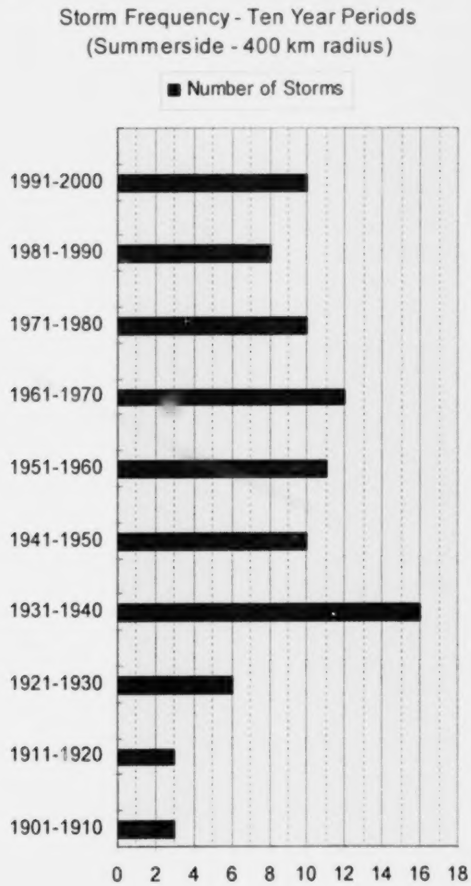
Name	Date	S#	MaxWind (kts)	SS Scale	AvgSysSpd (kts)	Pres (mb)	Comment	ENSO	R(km) R/W
Ione	Sep 21, 1955	9	60	TS	28.5		E	La Nina	400 R
Helene	Sep 29, 1958	8	70	SS1	41.0	963		Neutral	400 R
Not Named	Jun 19, 1959	3	70	SS1	17.0		E	Neutral	260 R/W
Cindy	Jul 11, 1959	4	50	TS	29.7		E	Neutral	260 R/W
Gracie	Oct 02, 1959	8	25	TD	32.3		E	Neutral	400 TD
Cleo	Aug 20, 1960	4	60	TS	20.0			Neutral	400 R
Donna	Sep 13, 1960	5	60	TS	39.1		E	Neutral	400 R
Not Named	Sep 15, 1961	6	35	TS	60.6			Neutral	260 R/W
Frances	Oct 09, 1961	7	40	TS	22.1		E	Neutral	260 R/W
Gerda	Oct 21, 1961	8	60	TS	16.8	993	E	Neutral	400 R
Daisy	Oct 08, 1962	4	65	SS1	16.5			Neutral	260 R/W
Ginny	Oct 29, 1963	8	95	SS2	29.1	958		El Nino	260 R/W
Dora	Sep 14, 1964	6	55	TS	28.5		E	La Nina	260 R/W
Gladys	Sep 24, 1964	9	65	SS1	36.2	982		La Nina	400 R
Becky	Jul 03, 1966	2	45	TS	14.4		E	Neutral	400 R
Celia	Jul 21, 1966	3	70	SS1	36.8	998		Neutral	260 R/W
Gladys	Oct 21, 1968	8	65	SS1	30.1			Neutral	260 R/W
Blanche	Aug 12, 1969	2	75	SS1	42.5			El Nino	400 R
Gerda	Sep 10, 1969	7	95	SS2	45.8	979		El Nino	400 R
Beth	Aug 16, 1971	3	65	SS1	14.8	978		La Nina	260 R/W
Carrie	Sep 04, 1972	4	50	TS	12.2		E	El Nino	260 R/W
Alice	Jul 06, 1973	1	60	TS	30.8			La Nina	400 R
Subtrop 3	Aug 14, 1974	3	50	TS	22.0		S	Neutral	400 R
Dolly	Sep 05, 1974	7	40	TS	31.7			Neutral	400 R
Blanche	Jul 28, 1975	2	70	SS1	33.5	980		La Nina	260 R/W
Evelyn	Oct 15, 1977	5	70	SS1	23.5	996		Neutral	260 R/W
David	Sep 07, 1979	4	50	TS	34.3	988	E	Neutral	260 R/W
Subtrop 1	Oct 24, 1979	9	65	SS1	38.8	985	S	Neutral	400 R
Subtrop 1	Jun 20, 1982	2	60	TS	37.2	988	S	El Nino	400 R
Diana	Sep 15, 1984	5	60	TS	38.8	992		Neutral	400 R
Ana	Jul 19, 1985	1	60	TS	27.5	996		Neutral	400 R
Gloria	Sep 28, 1985	7	50	TS	25.3	987	E	Neutral	400 R
Alberto	Aug 07, 1988	1	35	TS	28.0	1002		La Nina	260 R/W
Chris	Aug 30, 1988	3	25	TD	38.1	1008		La Nina	260 TD
Dean	Aug 08, 1989	4	75	SS1	31.4	975		Neutral	400 R
Bertha	Aug 02, 1990	2	70	SS1	20.6	973		Neutral	260 R/W
Lili	Oct 14, 1990	12	45	TS	37.3	995		Neutral	260 R/W
Bob	Aug 20, 1991	2	60	TS	24.6	977		El Nino	260 R/W
Unnamed	Nov 02, 1991	8	60	TS	24.7	988		El Nino	260 R/W
Allison	Jun 08, 1995	1	50	TS	22.8	984	E	Neutral	260 R/W
Barry	Jul 09, 1995	2	50	TS	22.6	993		Neutral	260 R/W
Bertha	Jul 14, 1996	2	55	TS	31.0	995		Neutral	260 R/W
Edouard	Sep 03, 1996	5	50	TS	19.5	992	E	Neutral	400 R
Hortense	Sep 14, 1996	8	75	SS1	22.9	960		Neutral	260 R/W
Josephine	Oct 09, 1996	10	45	TS	30.8	980	E	Neutral	260 R/W
Bonnie	Aug 29, 1998	2	45	TS	31.6	1000		La Nina	400 R
Floyd	Sep 17, 1999	6	45	TS	19.2	985	E	La Nina	260 R/W
Gordon	Sep 20, 2000	7	30	TD	16.1	1005	E	La Nina	400 TD
Subtrop	Oct 29, 2000	15	55	TS	30.1	978	S	La Nina	400 R

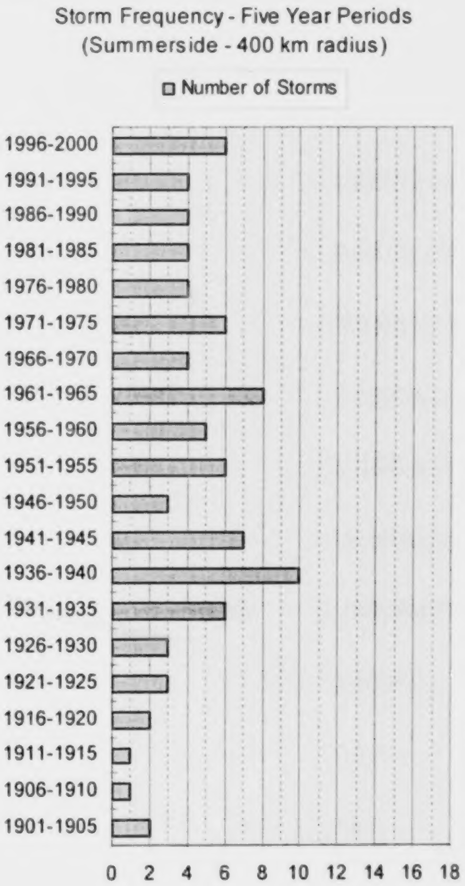
Summerside

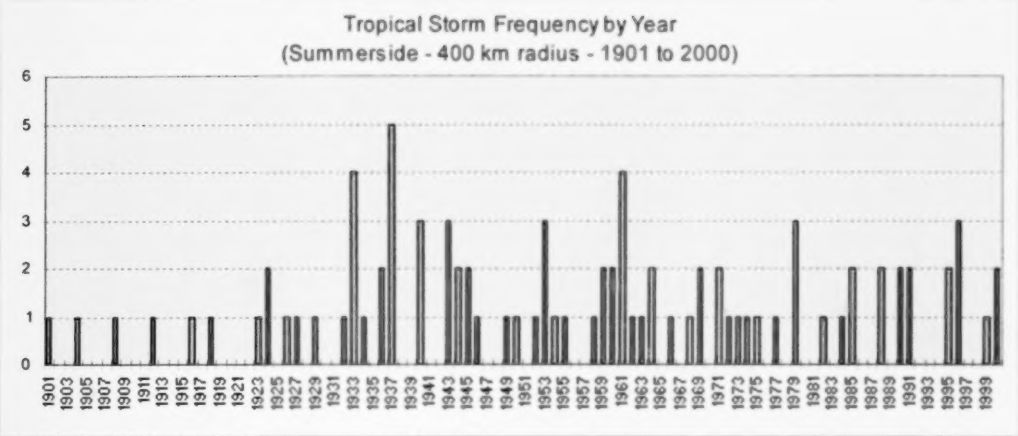

Summerside, PE


Summerside, PE

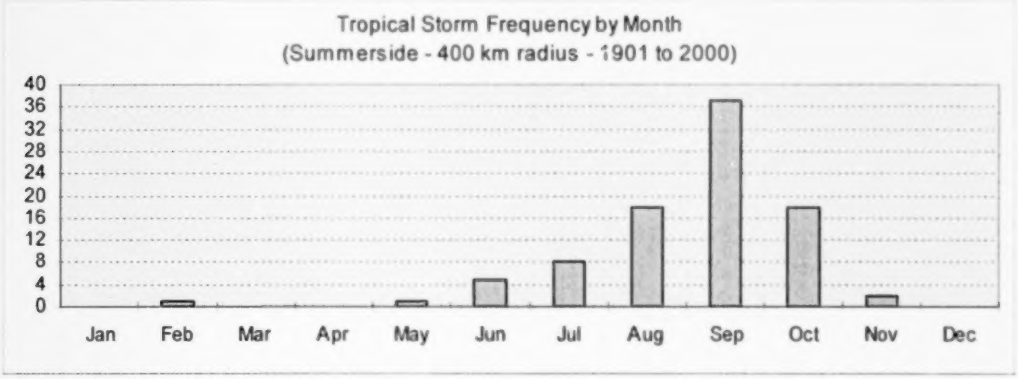
400 km Graphs - Frequency by Time-Periods (1901-2000)



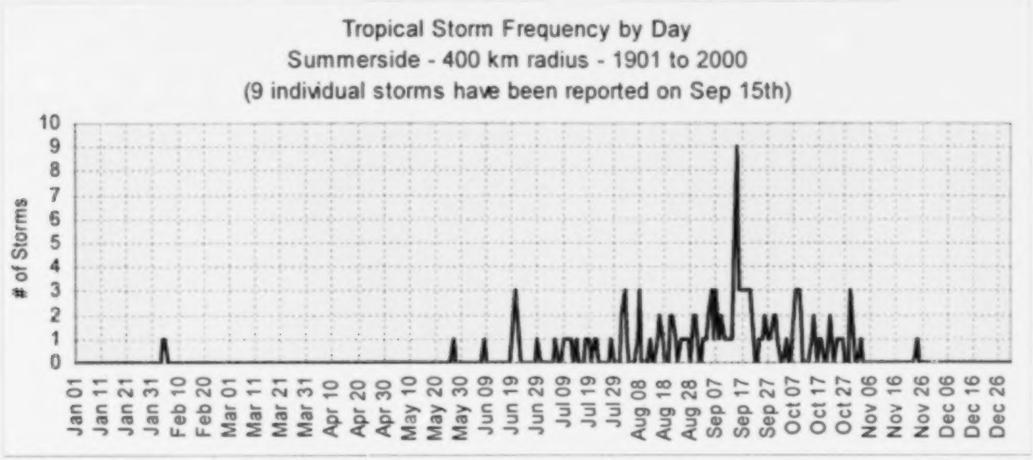



Tropical Storm Frequency by Year
(Summerside - 400 km radius - 1901 to 2000)

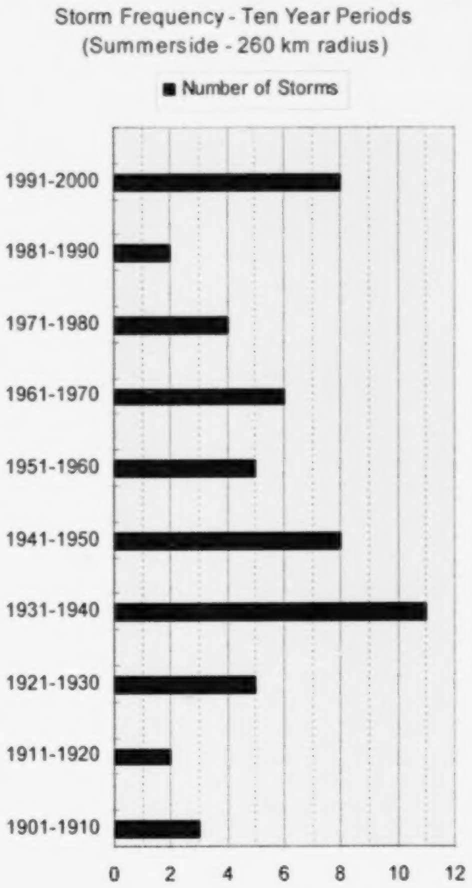
Note: Storms that span months were counted in both months

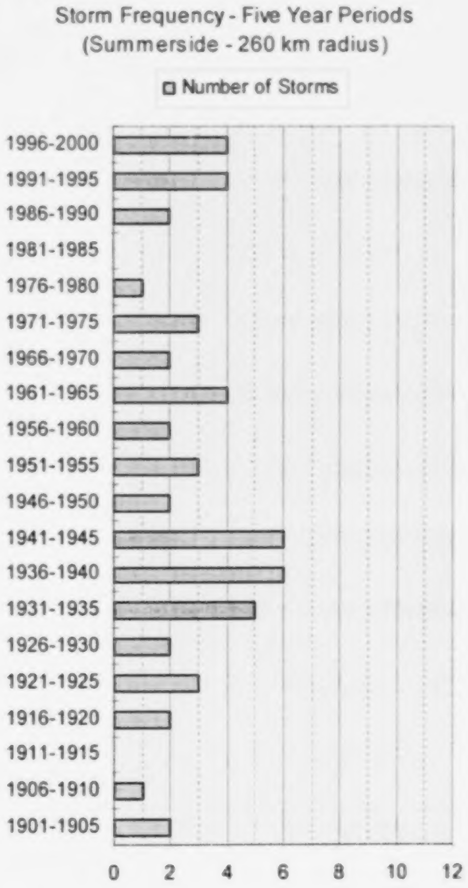

Tropical Storm Frequency by Month
(Summerside - 400 km radius - 1901 to 2000)

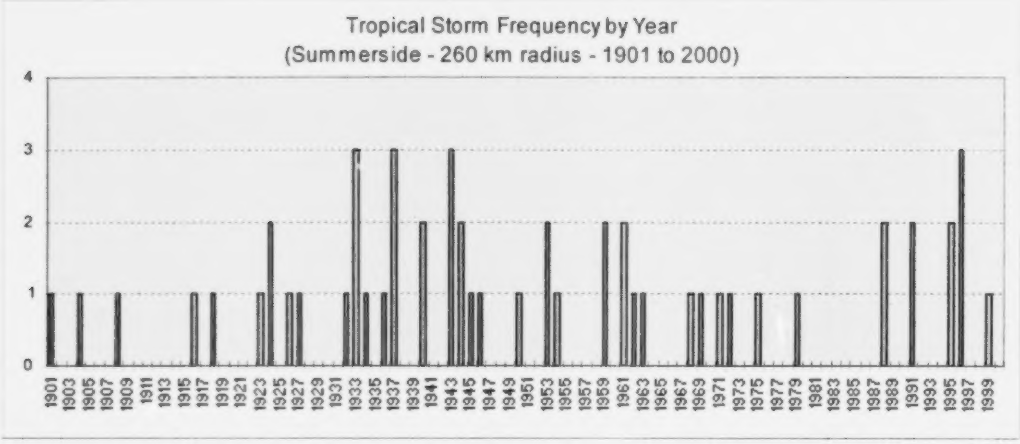
Note: Storms will generally span more than one day. The storm is counted in each day


Tropical Storm Frequency by Day
Summerside - 400 km radius - 1901 to 2000
(9 individual storms have been reported on Sep 15th)

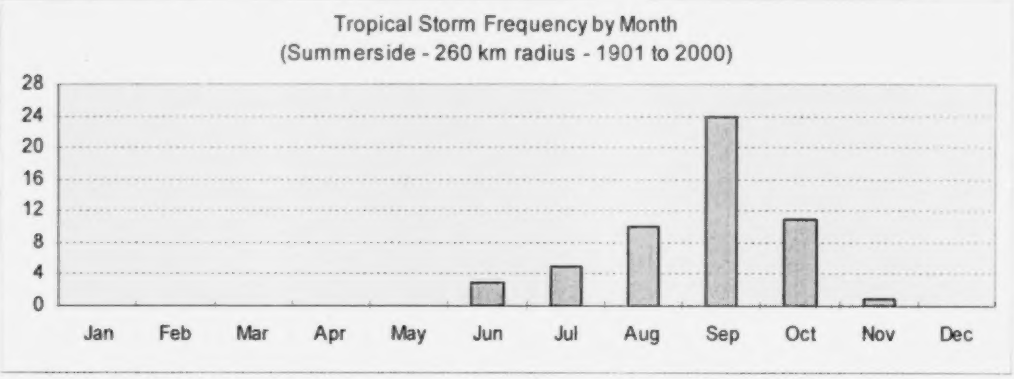
260 km Graphs - Frequency by Time-Periods (1901-2000)


Storm Frequency - Ten Year Periods
(Summerside - 260 km radius)

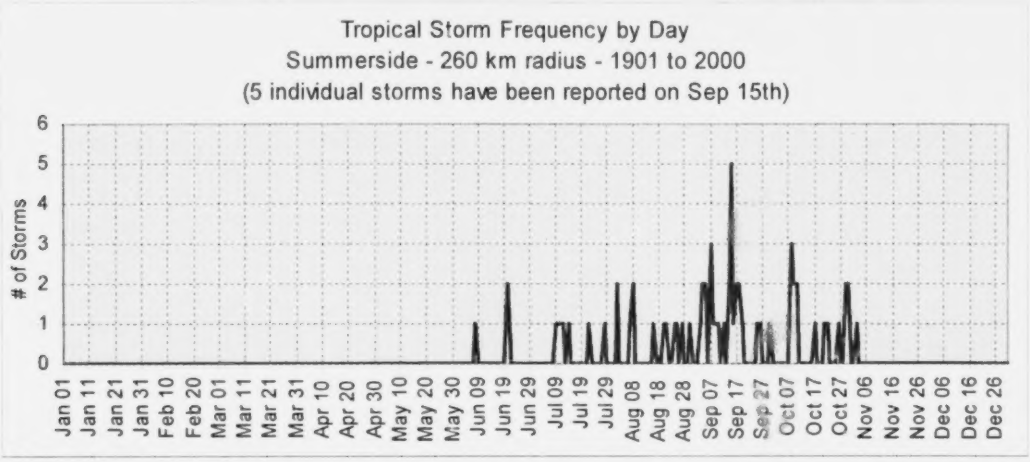

Storm Frequency - Five Year Periods
(Summerside - 260 km radius)


Tropical Storm Frequency by Year
(Summerside - 260 km radius - 1901 to 2000)

Note: Storms that span months were counted in both months


Tropical Storm Frequency by Month
(Summerside - 260 km radius - 1901 to 2000)

Note: Storms will generally span more than one day. The storm is counted in each day


Tropical Storm Frequency by Day
Summerside - 260 km radius - 1901 to 2000
(5 individual storms have been reported on Sep 15th)

Summerside – Summary Statistics 260 km Radius (gale swath)

100 Yr	**TD**	**TS**	**G**	**S**	**S1**	**S2**	**S3**	**S4**	**S5**	**H**	**<H**	**ALL**	**Sys-Spd**
#	4	30	12	18	15	5	0	0	0	20	34	54	27.9
Return	25	3.3	8.3	5.6	6.7	20	NA	NA	NA	5	2.9	1.9	
50 Yr	TD	TS	G	S	S1	S2	S3	S4	S5	H	<H	ALL	Sys-Spd
#	**1**	**15**	**5**	**10**	**7**	**2**	**0**	**0**	**0**	**9**	**16**	**25**	**28.1**
Return	50	3.3	10	5	7.1	25	NA	NA	NA	5.6	3.1	2	

Summerside – Summary Statistics 400 km Radius (trace precipitation swath)

100 Yr	**TD**	**TS**	**G**	**S**	**S1**	**S2**	**S3**	**S4**	**S5**	**H**	**<H**	**ALL**	**Sys-Spd**
#	10	45	19	26	28	5	1	0	0	34	55	89	29.4
Return	10	2.2	5.3	3.8	3.6	20	100	NA	NA	2.9	1.8	1.1	
50 Yr	**TD**	**TS**	**G**	**S**	**S1**	**S2**	**S3**	**S4**	**S5**	**H**	**<H**	**ALL**	**Sys-Spd**
#	4	28	8	20	17	1	1	0	0	19	32	51	30.2
Return	12.5	1.8	6.3	2.5	2.9	50	50	NA	NA	2.6	1.6	1	

Summerside – Storms That Tracked Within 400 km of Site (R) and within 260 km of the Site (R/W)

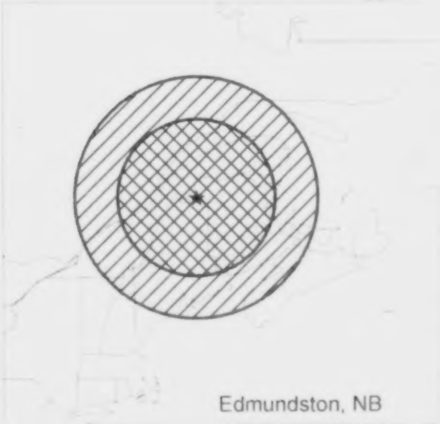
Name	**Date**	**S#**	**MaxWind (kts)**	**SS Scale**	**AvgSysSpd (kts)**	**Pres (mb)**	**Comment**	**ENSO**	**R(km) R/W**
Not Named	Sep 30, 1901	8	30	TD	28.2		E	Neutral	260 TD
Not Named	Sep 15, 1904	2	65	SS1	59.8		E	El Nino	260 R/W
Not Named	Aug 02, 1908	2	85	SS2	22.9			La Nina	260 R/W
Not Named	Nov 24, 1912	6	60	TS	36.8		E	Neutral	400 R
Not Named	Jul 22, 1916	2	55	TS	36.4			La Nina	260 R/W
Not Named	Sep 06, 1918	4	55	TS	19.4			El Nino	260 R/W
Not Named	Oct 26, 1923	4	30	TD	22.2		E	Neutral	260 TD
Not Named	Aug 27, 1924	2	85	SS2	33.1		E	La Nina	260 R/W
Not Named	Sep 04, 1924	3	70	SS1	25.9		E	La Nina	260 R/W
Not Named	Aug 08, 1926	2	75	SS1	25.0			Neutral	260 R/W
Not Named	Aug 24, 1927	1	90	SS2	50.6		E	Neutral	260 R/W
Not Named	Oct 04, 1929	2	25	TD	62.0		E	El Nino	400 TD
Not Named	Sep 17, 1932	5	35	TS	25.0		E	Neutral	260 R/W
Not Named	Aug 26, 1933	8	20	TD	18.9			Neutral	400 TD

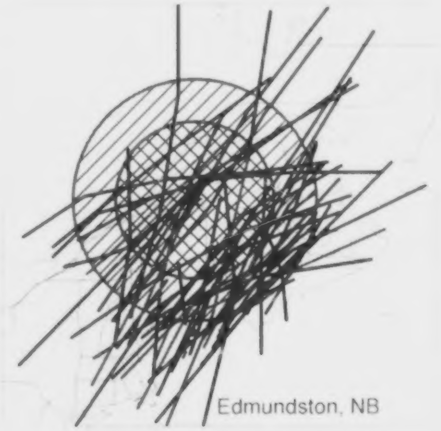
Name	Date	S#	MaxWind (kts)	SS Scale	AvgSysSpd (kts)	Pres (mb)	Comment	ENSO	R(km) R/W
Not Named	Sep 18, 1933	13	65	SS1	19.8		E	Neutral	260 R/W
Not Named	Oct 08, 1933	18	90	SS2	17.8		E	Neutral	260 R/W
Not Named	Oct 29, 1933	20	60	TS	12.8		E	Neutral	260 R/W
Not Named	Jun 20, 1934	2	40	TS	20.3		E	Neutral	260 R/W
Not Named	Sep 19, 1936	13	75	SS1	32.4			Neutral	400 R
Not Named	Sep 25, 1936	15	75	SS1	26.0		E	Neutral	260 R/W
Not Named	Aug 01, 1937	1	45	TS	12.5			Neutral	260 R/W
Not Named	Aug 08, 1937	2	40	TS	16.9			Neutral	400 R
Not Named	Sep 14, 1937	4	55	TS	26.5			Neutral	260 R/W
Not Named	Sep 26, 1937	7	80	SS1	25.2		E	Neutral	260 R/W
Not Named	Sep 29, 1937	8	35	TS	24.3		E	Neutral	400 R
Not Named	May 27, 1940	1	25	TD	17.5			El Nino	400 TD
Not Named	Sep 02, 1940	4	65	SS1	22.8			El Nino	260 R/W
Not Named	Sep 17, 1940	5	65	SS1	16.7			El Nino	260 R/W
Not Named	Sep 09, 1943	4	70	SS1	30.5			Neutral	260 R/W
Not Named	Sep 15, 1943	5	40	TS	23.4		E	Neutral	260 R/W
Not Named	Oct 17, 1943	9	40	TS	38.3		E	Neutral	260 R/W
Not Named	Sep 15, 1944	7	35	TS	40.1		E	La Nina	260 R/W
Not Named	Oct 22, 1944	11	45	TS	31.9		E	La Nina	260 R/W
Not Named	Jun 29, 1945	1	40	TS	21.0		E	Neutral	400 R
Not Named	Sep 19, 1945	9	25	TD	35.1		E	Neutral	260 TD
Not Named	Sep 15, 1946	4	60	TS	31.0		E	Neutral	260 R/W
Not Named	Aug 29, 1949	2	35	TS	38.3		E	La Nina	400 R
Able	Aug 21, 1950	1	65	SS1	26.8			Neutral	260 R/W
Not Named	Feb 04, 1952	1	50	TS	30.9		E	Neutral	400 R
Barbara	Aug 15, 1953	2	75	SS1	34.0			Neutral	400 R
Carol	Sep 07, 1953	4	65	SS1	31.9			Neutral	260 R/W
Not Named	Oct 07, 1953	10	60	TS	21.5		E	Neutral	260 R/W
Edna	Sep 11, 1954	5	80	SS1	44.1			La Nina	260 R/W
Ione	Sep 21, 1955	9	60	TS	28.5		E	La Nina	400 R
Helene	Sep 29, 1958	8	70	SS1	41.0	963		Neutral	400 R
Not Named	Jun 19, 1959	3	70	SS1	17.0		E	Neutral	260 R/W
Cindy	Jul 11, 1959	4	50	TS	29.7		E	Neutral	260 R/W
Cleo	Aug 20, 1960	4	60	TS	20.0			Neutral	400 R
Donna	Sep 13, 1960	5	75	SS1	38.8			Neutral	400 R
Esther	Sep 26, 1961	5	30	TD	18.5			Neutral	400 TD
Not Named	Sep 15, 1961	6	35	TS	60.6			Neutral	260 R/W
Frances	Oct 09, 1961	7	40	TS	22.1		E	Neutral	260 R/W
Gerda	Oct 21, 1961	8	60	TS	16.8	993	E	Neutral	400 R
Daisy	Oct 07, 1962	4	65	SS1	14.9			Neutral	260 R/W
Ginny	Oct 29, 1963	8	95	SS2	29.1	958		El Nino	260 R/W
Dora	Sep 14, 1964	6	55	TS	28.5		E	La Nina	400 R
Gladys	Sep 24, 1964	9	65	SS1	40.4	973		La Nina	400 R
Celia	Jul 21, 1966	3	65	SS1	37.6	998		Neutral	400 R
Gladys	Oct 21, 1968	8	65	SS1	30.1			Neutral	260 R/W
Blanche	Aug 12, 1969	2	75	SS1	42.5			El Nino	400 R
Gerda	Sep 09, 1969	7	110	SS3	44.9	979		El Nino	260 R/W
Beth	Aug 16, 1971	3	65	SS1	14.8	978		La Nina	260 R/W
Doria	Aug 29, 1971	5	35	TS	24.2		E	La Nina	400 R
Carrie	Sep 04, 1972	4	50	TS	12.2		E	El Nino	260 R/W
Alice	Jul 06, 1973	1	60	TS	30.8			La Nina	400 R
Dolly	Sep 05, 1974	7	40	TS	31.7			Neutral	400 R
Blanche	Jul 28, 1975	2	70	SS1	33.5	980		La Nina	260 R/W
Evelyn	Oct 15, 1977	5	70	SS1	23.5	996		Neutral	400 R
David	Sep 07, 1979	4	50	TS	34.3	988	E	Neutral	260 R/W

Name	Date	S#	MaxWind (kts)	SS Scale	AvgSysSpd (kts)	Pres (mb)	Comment	ENSO	R(km) R/W
Frederic	Sep 14, 1979	6	30	TD	78.7	998	E	Neutral	400 TD
Subtrop 1	Oct 24, 1979	9	65	SS1	37.5	985	S	Neutral	400 R
Subtrop 1	Jun 20, 1982	2	60	TS	37.2	988	S	El Nino	400 R
Diana	Sep 15, 1984	5	60	TS	38.8	992		Neutral	400 R
Ana	Jul 19, 1985	1	60	TS	27.5	996		Neutral	400 R
Gloria	Sep 28, 1985	7	50	TS	26.9	986	E	Neutral	400 R
Alberto	Aug 07, 1988	1	35	TS	26.5	1002		La Nina	260 R/W
Chris	Aug 30, 1988	3	25	TD	38.1	1008		La Nina	260 TD
Bertha	Aug 02, 1990	2	70	SS1	20.6	973		Neutral	400 R
Lili	Oct 14, 1990	12	45	TS	37.3	995		Neutral	400 R
Bob	Aug 20, 1991	2	60	TS	24.6	977		El Nino	260 R/W
Unnamed	Nov 02, 1991	8	60	TS	24.7	988		El Nino	260 R/W
Allison	Jun 08, 1995	1	50	TS	22.5	984	E	Neutral	260 R/W
Barry	Jul 09, 1995	2	50	TS	22.6	993		Neutral	260 R/W
Bertha	Jul 14, 1996	2	55	TS	31.0	995		Neutral	260 R/W
Hortense	Sep 14, 1996	8	75	SS1	22.9	960		Neutral	260 R/W
Josephine	Oct 09, 1996	10	45	TS	30.8	980	E	Neutral	260 R/W
Floyd	Sep 17, 1999	6	45	TS	19.2	985	E	La Nina	260 R/W
Gordon	Sep 20, 2000	7	30	TD	16.1	1005	E	La Nina	400 TD
Subtrop	Oct 29, 2000	15	55	TS	30.1	978	S	La Nina	400 R

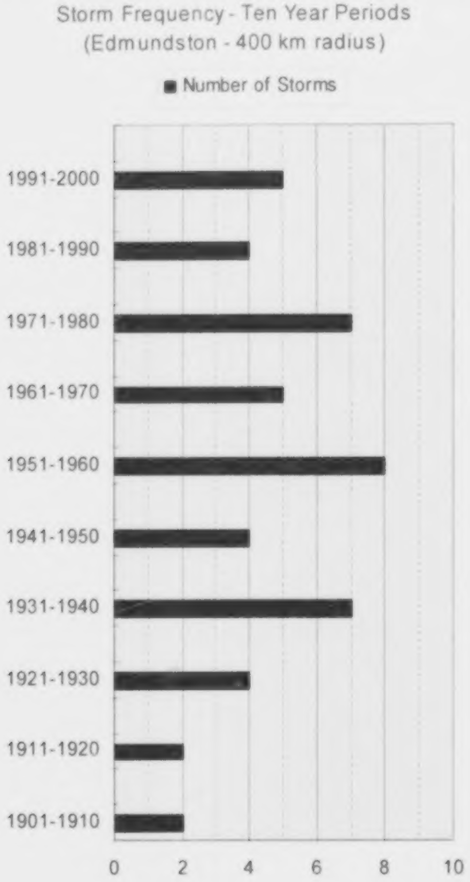
New Brunswick

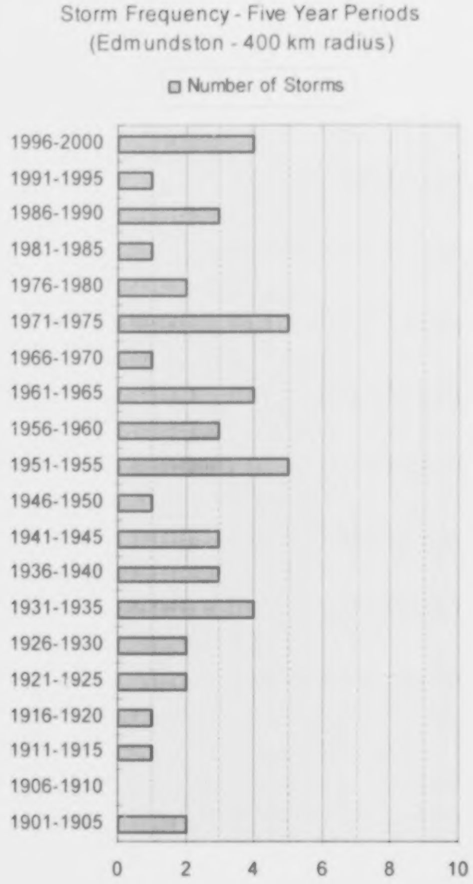
Edmundston

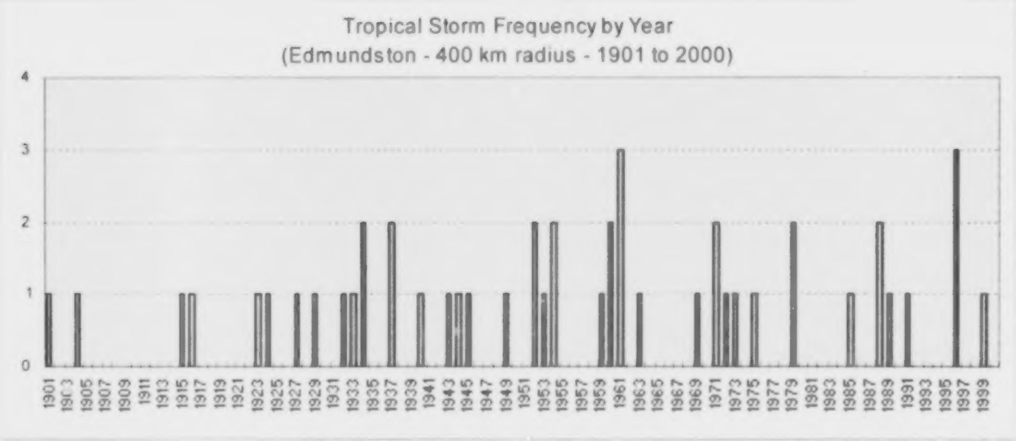




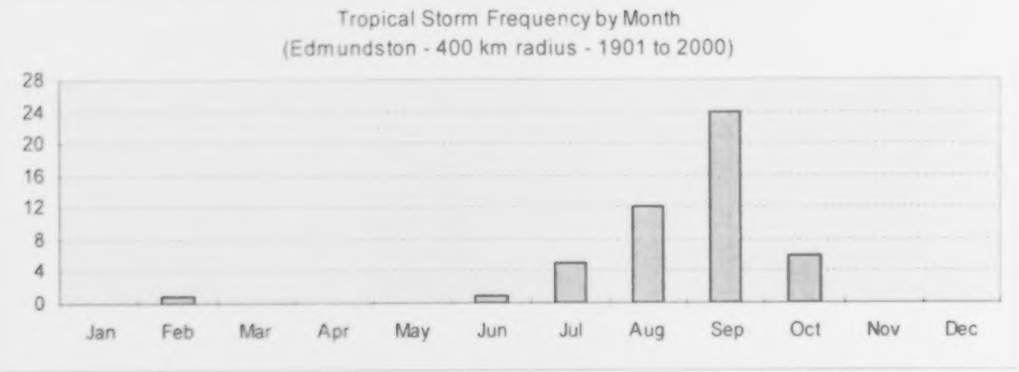
400 km Graphs - Frequency by Time-Periods (1901-2000)



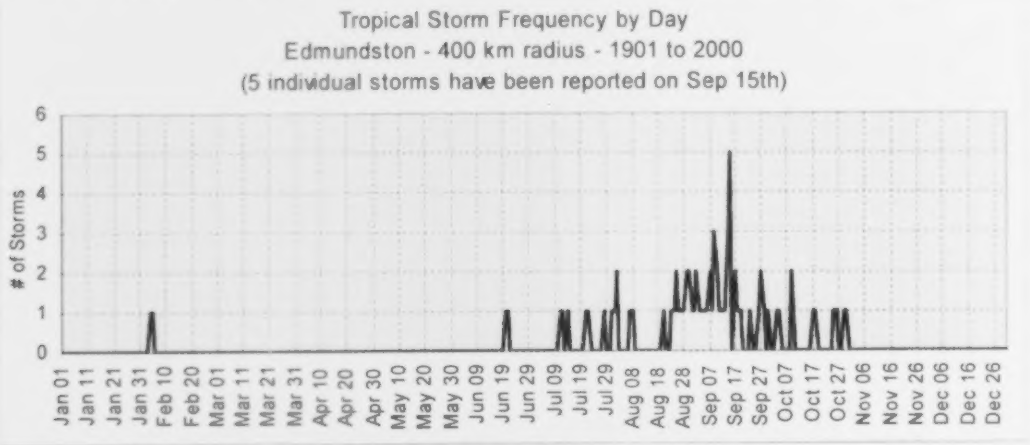




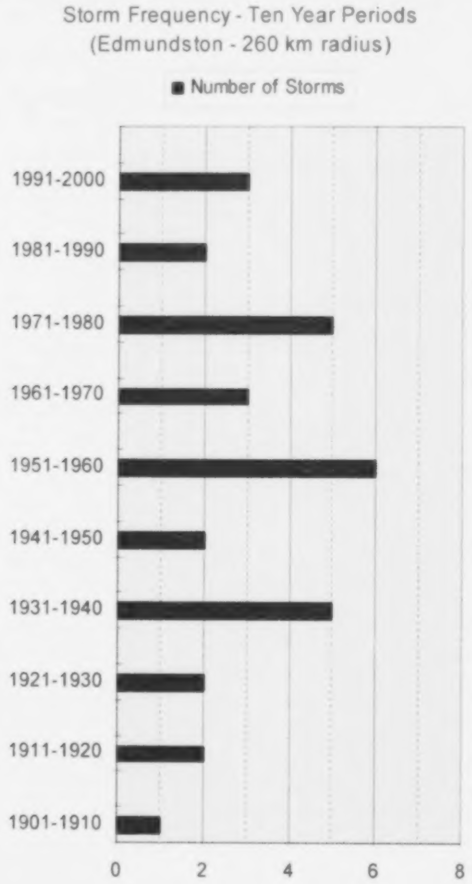
Note: Storms that span months were counted in both months

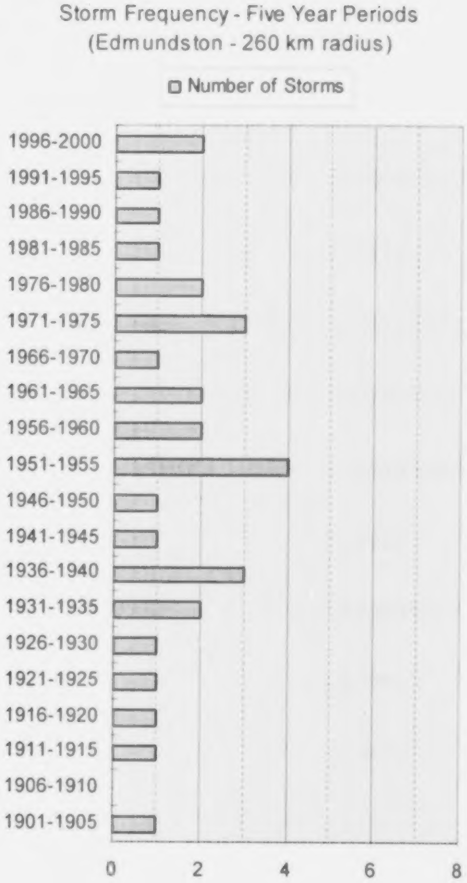


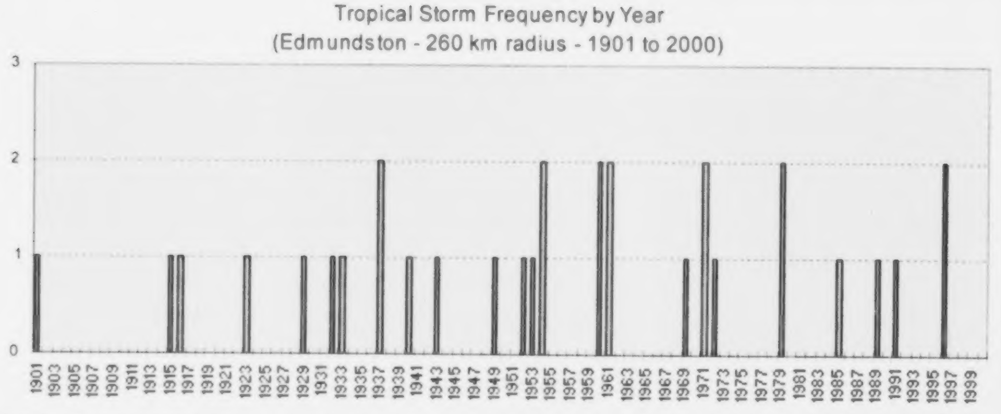
Note: Storms will generally span more than one day. The storm is counted in each day



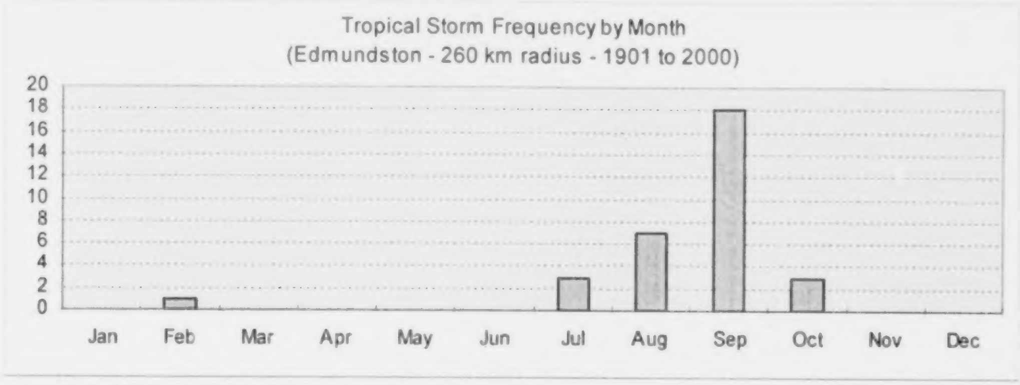
260 km Graphs - Frequency by Time-Periods (1901-2000)


Storm Frequency - Ten Year Periods
(Edmundston - 260 km radius)

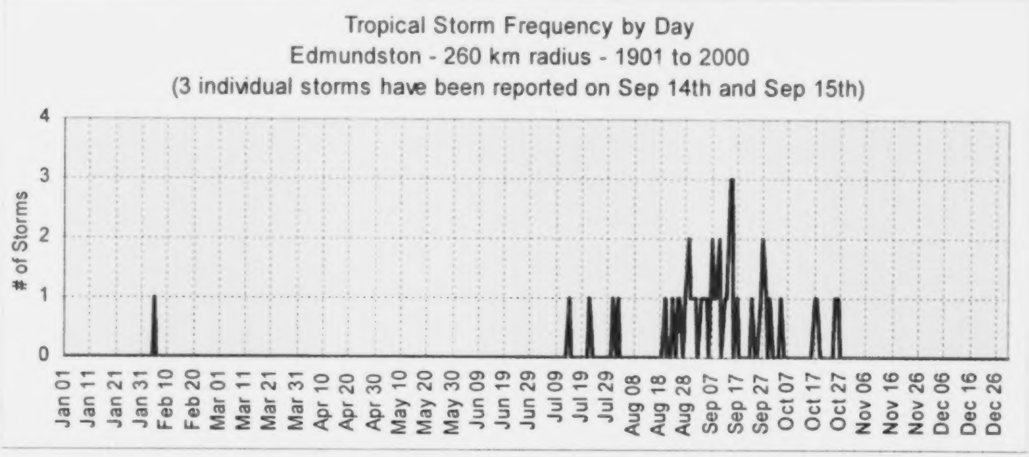

Storm Frequency - Five Year Periods
(Edmundston - 260 km radius)


Tropical Storm Frequency by Year
(Edmundston - 260 km radius - 1901 to 2000)

Note: Storms that span months were counted in both months



Note: Storms will generally span more than one day. The storm is counted in each day



Edmundston – Summary Statistics 260 km Radius (gale swath)

100 Yr	**TD**	**TS**	**G**	**S**	**S1**	**S2**	**S3**	**S4**	**S5**	**H**	**<H**	**ALL**	**Sys-Spd**
#	8	17	11	6	5	1	0	0	0	6	25	31	30.5
Return	12.5	5.9	9.1	16.7	20	100	NA	NA	NA	16.7	4	3.2	
50 Yr	**TD**	**TS**	**G**	**S**	**S1**	**S2**	**S3**	**S4**	**S5**	**H**	**<H**	**ALL**	**Sys-Spd**
#	3	10	6	4	5	1	0	0	0	6	13	19	33.6
Return	16.7	5	8.3	12.5	10	50	NA	NA	NA	8.3	3.8	2.6	

Edmundston – Summary Statistics 400 km Radius (trace precipitation swath)

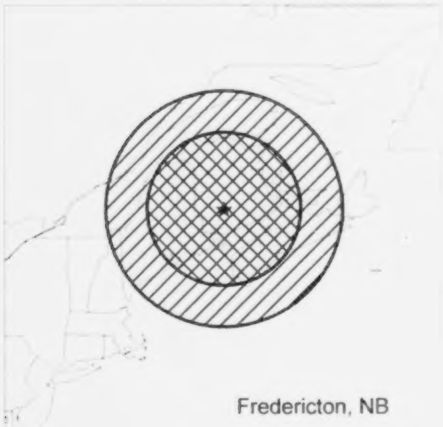
100 Yr	TD	TS	G	S	S1	S2	S3	S4	S5	H	<H	ALL	Sys-Spd
#	11	24	16	8	9	3	1	0	0	13	35	48	30.0
Return	9.1	4.2	6.3	12.5	11.1	33.3	100	NA	NA	7.7	2.9	2.1	
50 Yr	**TD**	**TS**	**G**	**S**	**S1**	**S2**	**S3**	**S4**	**S5**	**H**	**<H**	**ALL**	**Sys-Spd**
#	5	17	10	7	5	1	1	0	0	7	22	29	29.9
Return	10	2.9	5	7.1	10	50	50	NA	NA	7.1	2.3	1.7	

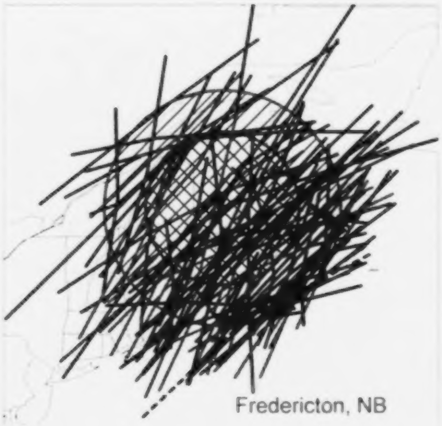
Edmundston – Storms That Tracked Within 400 km of Site (R) and within 260 km of the Site (R/W)

Name	Date	S#	MaxWind (kts)	SS Scale	AvgSysSpd (kts)	Pres (mb)	Comment	ENSO	R(km) R/W
Not Named	Sep 30, 1901	8	30	TD	25.9		E	Neutral	260 TD
Not Named	Sep 15, 1904	2	65	SS1	59.8		E	El Nino	400 R
Not Named	Aug 23, 1915	2	25	TD	26.7		E	Neutral	260 TD
Not Named	Jul 21, 1916	2	65	SS1	27.1			La Nina	260 R/W
Not Named	Oct 25, 1923	4	30	TD	23.4		E	Neutral	260 TD
Not Named	Aug 27, 1924	2	85	SS2	40.4		E	La Nina	400 R
Not Named	Aug 24, 1927	1	90	SS2	53.1		E	Neutral	400 R
Not Named	Oct 03, 1929	2	30	TD	25.3		E	El Nino	260 TD
Not Named	Sep 17, 1932	5	35	TS	25.0		E	Neutral	260 R/W
Not Named	Aug 25, 1933	8	30	TD	13.8			Neutral	260 TD
Not Named	Jun 20, 1934	2	40	TS	21.7		E	Neutral	400 R
Not Named	Sep 09, 1934	6	40	TS	25.5		E	Neutral	400 R
Not Named	Aug 02, 1937	1	40	TS	12.2			Neutral	260 R/W
Not Named	Sep 14, 1937	4	55	TS	26.5			Neutral	260 R/W
Not Named	Sep 02, 1940	4	65	SS1	22.8			El Nino	260 R/W
Not Named	Oct 17, 1943	9	40	TS	38.3		E	Neutral	260 R/W
Not Named	Sep 15, 1944	7	65	SS1	36.8	966		La Nina	400 R
Not Named	Sep 19, 1945	9	25	TD	30.7		E	Neutral	400 TD
Not Named	Aug 29, 1949	2	35	TS	34.8		E	La Nina	260 R/W
Not Named	Feb 04, 1952	1	50	TS	30.9		E	Neutral	260 R/W
Able	Sep 02, 1952	2	25	TD	10.0			Neutral	400 TD
Carol	Sep 07, 1953	4	65	SS1	32.6			Neutral	260 R/W
Carol	Aug 31, 1954	3	75	SS1	29.2	976	E	La Nina	260 R/W
Edna	Sep 11, 1954	5	80	SS1	44.1			La Nina	260 R/W
Cindy	Jul 11, 1959	4	50	TS	30.0		E	Neutral	400 R
Brenda	Jul 31, 1960	3	40	TS	34.6			Neutral	260 R/W
Donna	Sep 13, 1960	5	75	SS1	38.5			Neutral	260 R/W
Esther	Sep 26, 1961	5	35	TS	20.4			Neutral	260 TD
Not Named	Sep 15, 1961	6	35	TS	51.4			Neutral	260 R/W
Frances	Oct 09, 1961	7	40	TS	15.6		E	Neutral	400 R
Ginny	Oct 29, 1963	8	90	SS2	27.1		E	El Nino	400 R
Gerda	Sep 09, 1969	7	110	SS3	44.9	979		El Nino	260 R/W
Doria	Aug 28, 1971	5	45	TS	24.8			La Nina	260 R/W
Heidi	Sep 14, 1971	9	40	TS	18.1	998		La Nina	260 R/W
Carrie	Sep 04, 1972	4	50	TS	12.2		E	El Nino	260 R/W
Alfa	Aug 01, 1973	2	25	TD	14.3	1008	S	La Nina	400 TD
Blanche	Jul 28, 1975	2	60	TS	37.5	988	E	La Nina	400 R
David	Sep 07, 1979	4	50	TS	31.8	988	E	Neutral	260 R/W
Frederic	Sep 14, 1979	6	30	TD	78.7	998	E	Neutral	260 TD
Gloria	Sep 27, 1985	7	75	SS1	30.5	964		Neutral	260 R/W
Alberto	Aug 07, 1988	1	35	TS	25.6	1002		La Nina	400 R
Chris	Aug 30, 1988	3	25	TD	38.1	1008		La Nina	400 TD
Hugo	Sep 23, 1989	8	40	TS	40.2	990	E	Neutral	260 R/W
Bob	Aug 20, 1991	2	60	TS	23.7	977		El Nino	260 R/W
Bertha	Jul 14, 1996	2	60	TS	29.0	994		Neutral	260 R/W

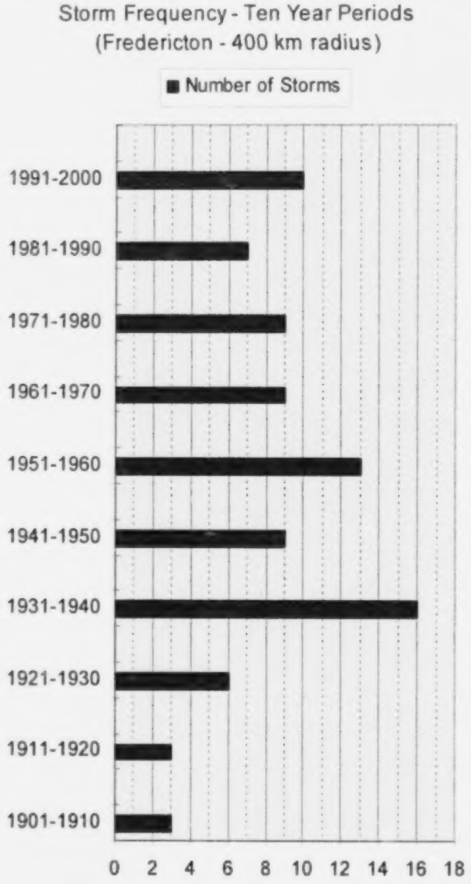
Name	Date	S#	MaxWind (kts)	SS Scale	AvgSysSpd (kts)	Pres (mb)	Comment	ENSO	R(km) R/W
Fran	Sep 09, 1996	6	20	TD	10.5	1004	E	Neutral	260 TD
Josephine	Oct 09, 1996	10	45	TS	28.0	980	E	Neutral	400 R
Floyd	Sep 17, 1999	6	45	TS	15.8	984	E	La Nina	400 R

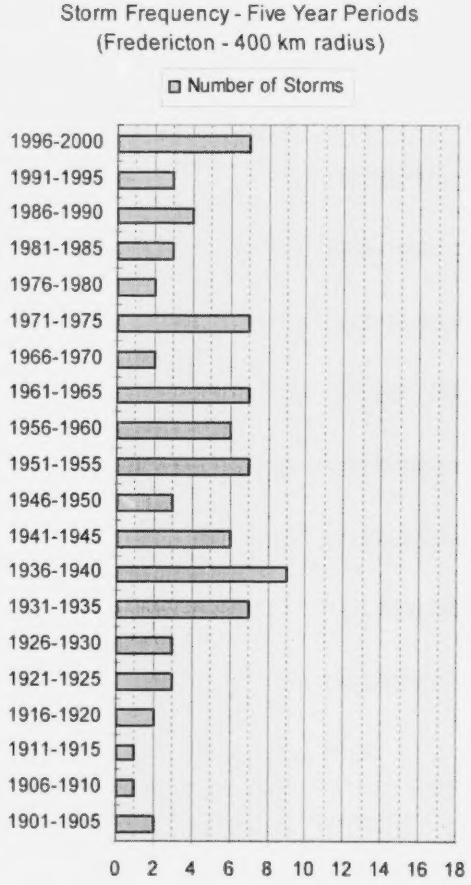
Fredericton

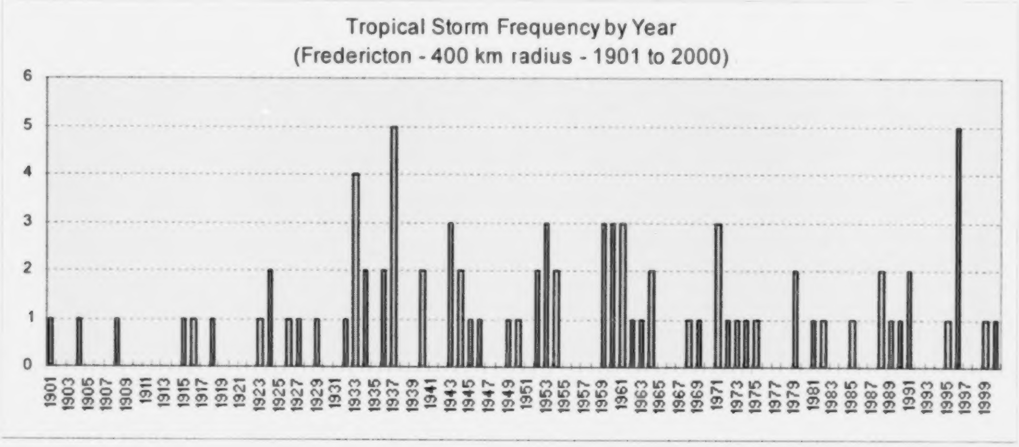




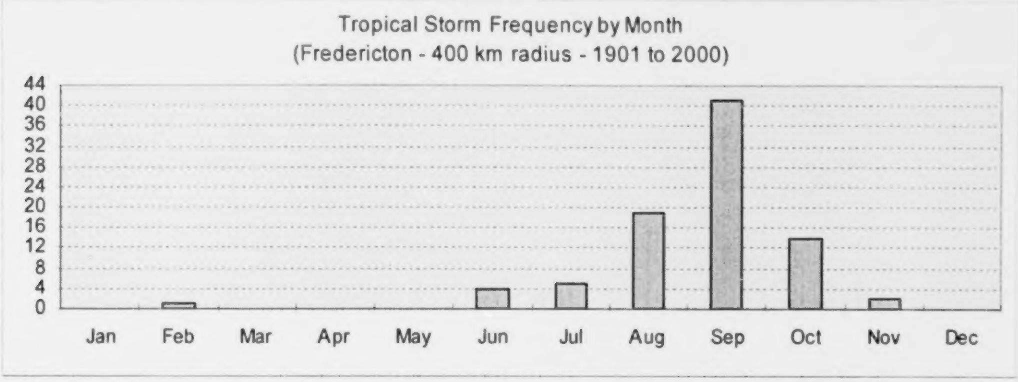
400 km Graphs - Frequency by Time-Periods (1901-2000)



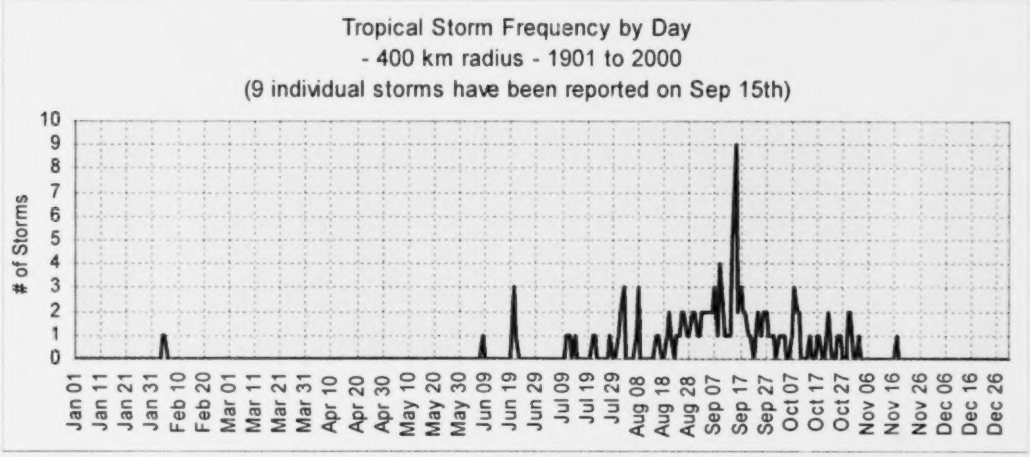




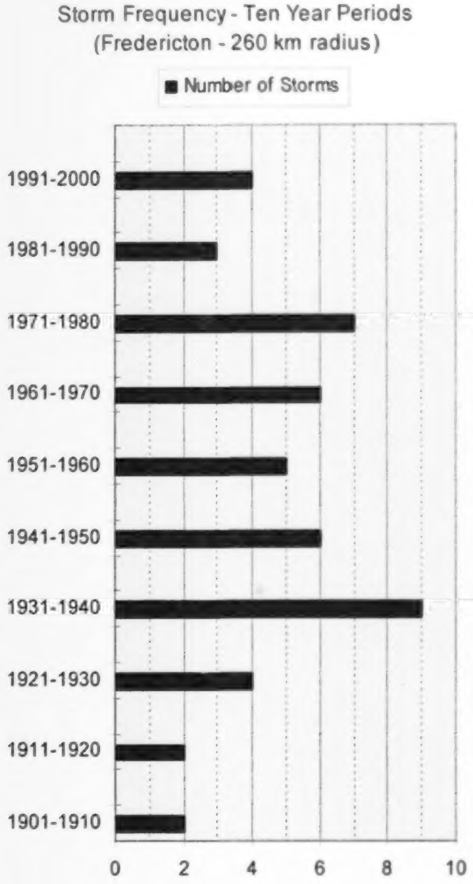
Note: Storms that span months were counted in both months

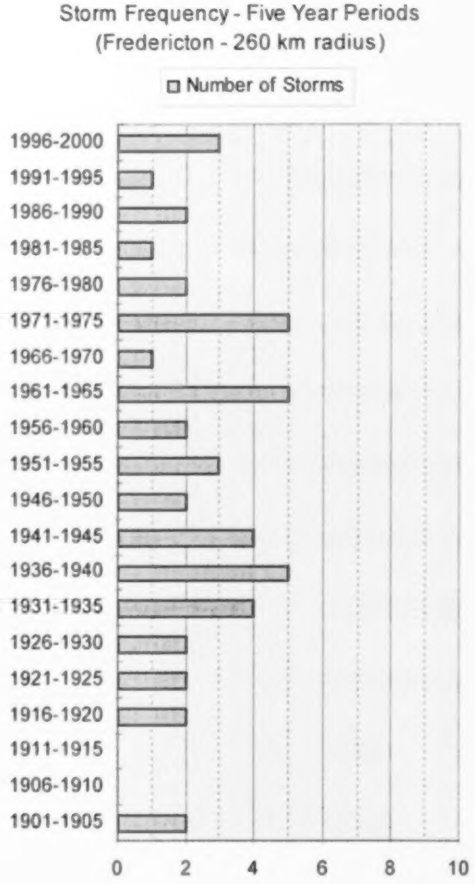


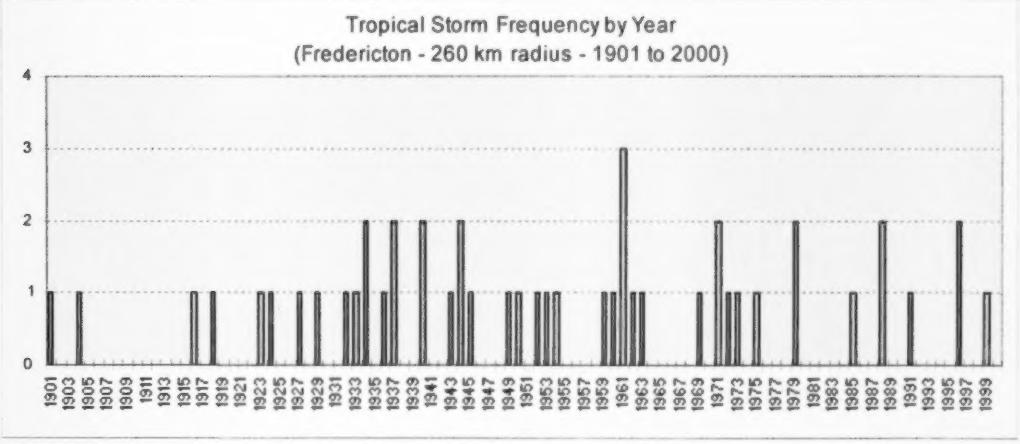
Note: Storms will generally span more than one day. The storm is counted in each day



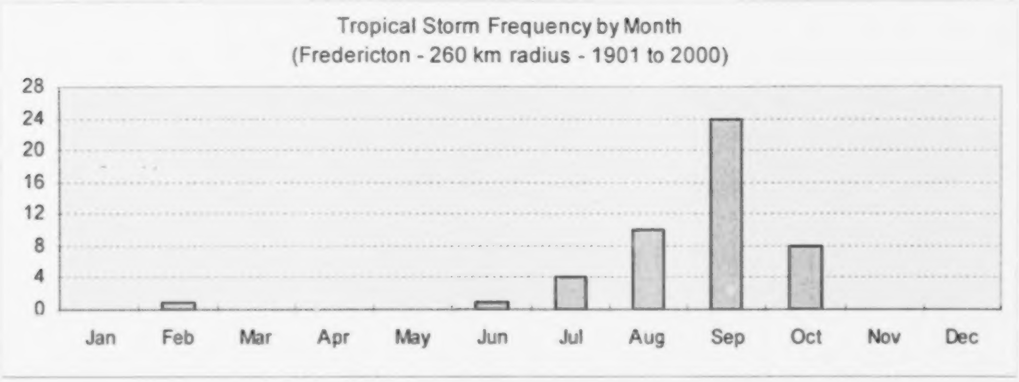
260 km Graphs - Frequency by Time-Periods (1901-2000)



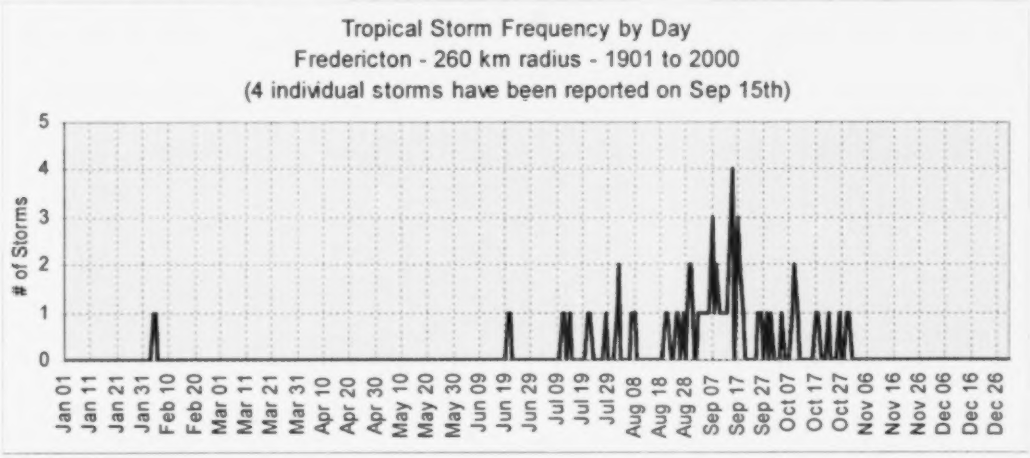




Note: Storms that span months were counted in both months


Tropical Storm Frequency by Month
(Fredericton - 260 km radius - 1901 to 2000)

Note: Storms will generally span more than one day. The storm is counted in each day


Tropical Storm Frequency by Day
Fredericton - 260 km radius - 1901 to 2000
(4 individual storms have been reported on Sep 15th)

Fredericton – Summary Statistics 260 km Radius (gale swath)

100 Yr	**TD**	**TS**	**G**	**S**	**S1**	**S2**	**S3**	**S4**	**S5**	**H**	**<H**	**ALL**	**Sys-Spd**
#	8	24	14	10	12	3	1	0	0	16	32	48	30.7
Return	12.5	4.2	7.1	10	8.3	33.3	100	NA	NA	6.3	3.1	2.1	
50 Yr	**TD**	**TS**	**G**	**S**	**S1**	**S2**	**S3**	**S4**	**S5**	**H**	**<H**	**ALL**	**Sys-Spd**
#	4	14	7	7	5	1	1	0	0	7	18	25	30.8
Return	12.5	3.6	7.1	7.1	10	50	50	NA	NA	7.1	2.8	2	

Fredericton – Summary Statistics 400 km Radius (trace precipitation swath)

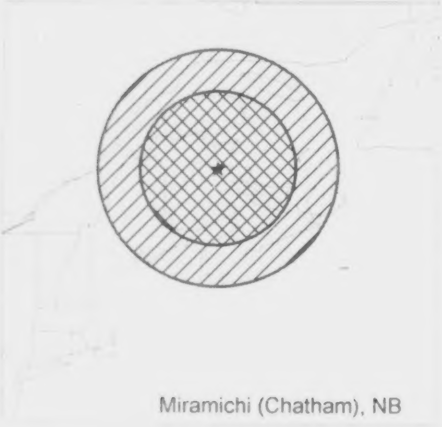
100 Yr	**TD**	**TS**	**G**	**S**	**S1**	**S2**	**S3**	**S4**	**S5**	**H**	**<H**	**ALL**	**Sys-Spd**
#	13	38	19	19	27	6	1	0	0	34	51	85	27.3
Return	7.7	2.6	5.3	5.3	3.7	16.7	100	NA	NA	2.9	2	1.2	
50 Yr	**TD**	**TS**	**G**	**S**	**S1**	**S2**	**S3**	**S4**	**S5**	**H**	**<H**	**ALL**	**Sys-Spd**
#	7	25	10	15	13	2	1	0	0	16	32	48	27.8
Return	7.1	2	5	3.3	3.8	25	50	NA	NA	3.1	1.6	1	

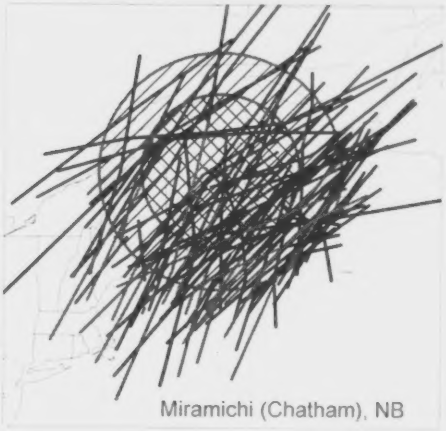
Fredericton – Storms That Tracked Within 400 km of Site (R) and within 260 km of the Site (R/W)

Name	**Date**	**S#**	**MaxWind (kts)**	**SS Scale**	**AvgSysSpd (kts)**	**Pres (mb)**	**Comment**	**ENSO**	**R(km) R/W**
Not Named	Sep 30, 1901	8	30	TD	28.2		E	Neutral	260 TD
Not Named	Sep 15, 1904	2	65	SS1	59.8		E	El Nino	260 R/W
Not Named	Aug 02, 1908	2	85	SS2	23.6			La Nina	400 R
Not Named	Aug 23, 1915	2	25	TD	26.7		E	Neutral	400 TD
Not Named	Jul 21, 1916	2	65	SS1	27.1			La Nina	260 R/W
Not Named	Sep 06, 1918	4	55	TS	19.4			El Nino	260 R/W
Not Named	Oct 25, 1923	4	25	TD	23.9		E	Neutral	260 TD
Not Named	Aug 26, 1924	2	90	SS2	35.6			La Nina	260 R/W
Not Named	Sep 04, 1924	3	70	SS1	25.5		E	La Nina	400 R
Not Named	Aug 08, 1926	2	75	SS1	24.5			Neutral	400 R
Not Named	Aug 24, 1927	1	90	SS2	53.1		E	Neutral	260 R/W
Not Named	Oct 03, 1929	2	30	TD	25.3		E	El Nino	260 TD
Not Named	Sep 17, 1932	5	35	TS	25.0		E	Neutral	260 R/W
Not Named	Aug 25, 1933	8	25	TD	15.6			Neutral	400 TD
Not Named	Sep 18, 1933	13	65	SS1	22.8		E	Neutral	260 R/W
Not Named	Oct 08, 1933	18	90	SS2	12.4		E	Neutral	400 R
Not Named	Oct 29, 1933	20	60	TS	13.0		E	Neutral	400 R
Not Named	Jun 20, 1934	2	40	TS	21.3		E	Neutral	260 R/W
Not Named	Sep 09, 1934	6	40	TS	25.5		E	Neutral	260 R/W
Not Named	Sep 19, 1936	13	80	SS1	31.3			Neutral	400 R
Not Named	Sep 24, 1936	15	75	SS1	23.0			Neutral	260 R/W
Not Named	Aug 01, 1937	1	50	TS	14.1			Neutral	260 R/W
Not Named	Aug 08, 1937	2	40	TS	14.7			Neutral	400 R
Not Named	Sep 14, 1937	4	60	TS	26.7			Neutral	260 R/W
Not Named	Sep 26, 1937	7	80	SS1	25.2		E	Neutral	400 R
Not Named	Sep 29, 1937	8	35	TS	23.9		E	Neutral	400 R
Not Named	Sep 02, 1940	4	70	SS1	21.2			El Nino	260 R/W
Not Named	Sep 16, 1940	5	70	SS1	18.5			El Nino	260 R/W
Not Named	Sep 09, 1943	4	70	SS1	28.2			Neutral	400 R
Not Named	Sep 15, 1943	5	40	TS	22.3		E	Neutral	400 R
Not Named	Oct 17, 1943	9	40	TS	38.3		E	Neutral	260 R/W
Not Named	Sep 15, 1944	7	65	SS1	36.8	966		La Nina	260 R/W
Not Named	Oct 21, 1944	11	45	TS	32.2		E	La Nina	260 R/W
Not Named	Sep 19, 1945	9	25	TD	30.7		E	Neutral	260 TD
Not Named	Sep 15, 1946	4	65	SS1	27.1			Neutral	400 R
Not Named	Aug 29, 1949	2	35	TS	38.3		E	La Nina	260 R/W
Able	Aug 21, 1950	1	65	SS1	26.8			Neutral	260 R/W
Not Named	Feb 04, 1952	1	50	TS	30.9		E	Neutral	260 R/W
Able	Sep 02, 1952	2	25	TD	10.3			Neutral	400 TD
Barbara	Aug 15, 1953	2	75	SS1	33.3			Neutral	400 R
Carol	Sep 07, 1953	4	70	SS1	32.9			Neutral	260 R/W
Not Named	Oct 08, 1953	10	60	TS	19.4		E	Neutral	400 R
Carol	Aug 31, 1954	3	75	SS1	29.2	976	E	La Nina	400 R
Edna	Sep 11, 1954	5	80	SS1	44.1			La Nina	260 R/W
Not Named	Jun 20, 1959	3	60	TS	11.5		E	Neutral	400 R

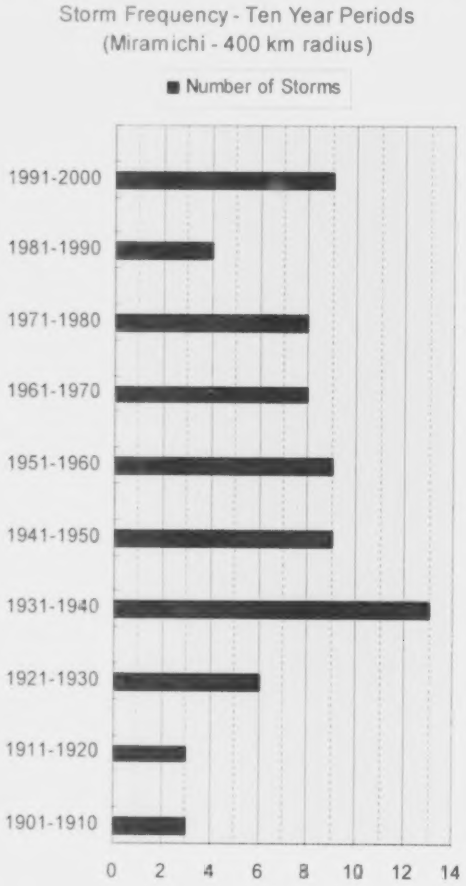
Name	Date	S#	MaxWind (kts)	SS Scale	AvgSysSpd (kts)	Pres (mb)	Comment	ENSO	R(km) R/W
Cindy	Jul 11, 1959	4	50	TS	30.0			Neutral	260 R/W
Gracie	Oct 02, 1959	8	25	TD	30.1		E	Neutral	400 TD
Brenda	Jul 31, 1960	3	40	TS	33.8			Neutral	400 R
Cleo	Aug 20, 1960	4	60	TS	21.0			Neutral	400 R
Donna	Sep 13, 1960	5	75	SS1	38.8			Neutral	260 R/W
Esther	Sep 26, 1961	5	35	TS	20.4			Neutral	260 TD
Not Named	Sep 15, 1961	6	35	TS	51.4			Neutral	260 R/W
Frances	Oct 09, 1961	7	65	SS1	16.5			Neutral	260 R/W
Daisy	Oct 07, 1962	4	65	SS1	12.3			Neutral	260 R/W
Ginny	Oct 29, 1963	8	95	SS2	29.1	958		El Nino	260 R/W
Dora	Sep 14, 1964	6	55	TS	28.5		E	La Nina	400 R
Gladys	Sep 24, 1964	9	65	SS1	30.9	982		La Nina	400 R
Gladys	Oct 21, 1968	8	65	SS1	30.1			Neutral	400 R
Gerda	Sep 09, 1969	7	110	SS3	44.9	979		El Nino	260 R/W
Beth	Aug 16, 1971	3	65	SS1	14.1	978		La Nina	400 R
Doria	Aug 28, 1971	5	45	TS	24.8			La Nina	260 R/W
Heidi	Sep 14, 1971	9	50	TS	19.5			La Nina	260 R/W
Carrie	Sep 04, 1972	4	55	TS	12.7	992	E	El Nino	260 R/W
Alfa	Aug 01, 1973	2	25	TD	13.3	1007	S	La Nina	260 TD
Dolly	Sep 05, 1974	7	40	TS	31.7			Neutral	400 R
Blanche	Jul 28, 1975	2	70	SS1	33.5	980		La Nina	260 R/W
David	Sep 07, 1979	4	50	TS	31.8	988	E	Neutral	260 R/W
Frederic	Sep 14, 1979	6	30	TD	78.7	998	E	Neutral	260 TD
Subtrop 3	Nov 17, 1981	12	50	TS	17.8	985	S	Neutral	400 R
Subtrop 1	Jun 20, 1982	2	60	TS	44.9	992	S	El Nino	400 R
Gloria	Sep 27, 1985	7	75	SS1	32.4	964		Neutral	260 R/W
Alberto	Aug 07, 1988	1	35	TS	24.6	1002		La Nina	260 R/W
Chris	Aug 30, 1988	3	25	TD	37.3	1008		La Nina	260 TD
Hugo	Sep 23, 1989	8	40	TS	40.2	990	E	Neutral	400 R
Lili	Oct 14, 1990	12	45	TS	38.3	995		Neutral	400 R
Bob	Aug 19, 1991	2	85	SS2	24.7	964		El Nino	260 R/W
Unnamed	Nov 02, 1991	8	60	TS	24.7	988		El Nino	400 R
Allison	Jun 08, 1995	1	50	TS	21.2	982	E	Neutral	400 R
Bertha	Jul 14, 1996	2	60	TS	30.5	994		Neutral	260 R/W
Edouard	Sep 03, 1996	5	55	TS	11.4	985	E	Neutral	400 R
Fran	Sep 09, 1996	6	15	TD	9.6	1006	E	Neutral	400 TD
Hortense	Sep 14, 1996	8	75	SS1	21.0	960		Neutral	400 R
Josephine	Oct 09, 1996	10	45	TS	29.9	980	E	Neutral	260 R/W
Floyd	Sep 17, 1999	6	45	TS	18.2	984	E	La Nina	260 R/W
Gordon	Sep 20, 2000	7	30	TD	15.7	1005	E	La Nina	400 TD

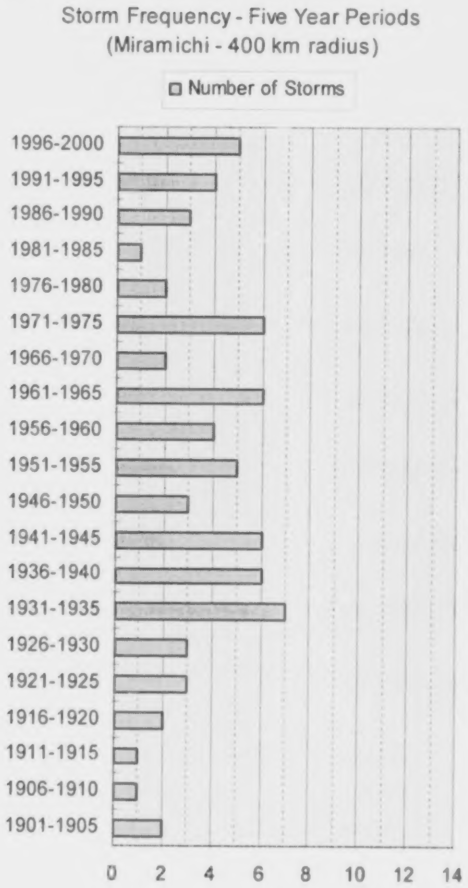
Miramichi (Chatham)

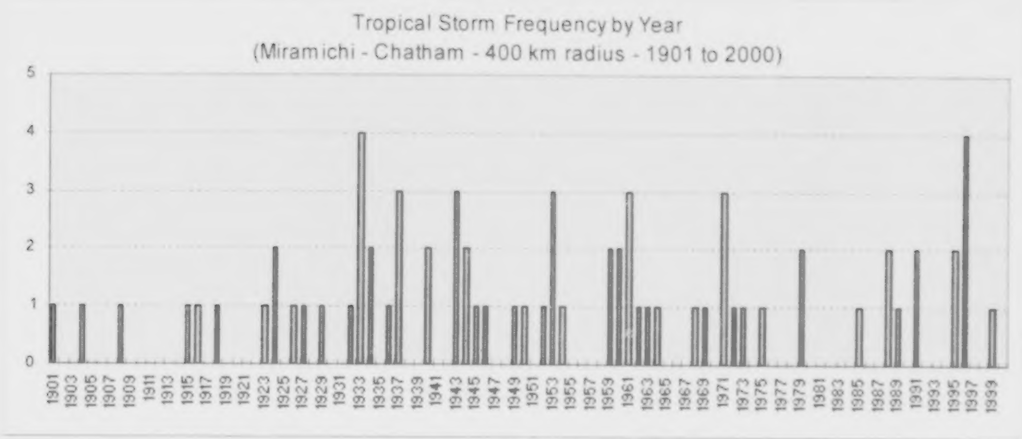

Miramichi (Chatham), NB


Miramichi (Chatham), NB

400 km Graphs - Frequency by Time-Periods (1901-2000)

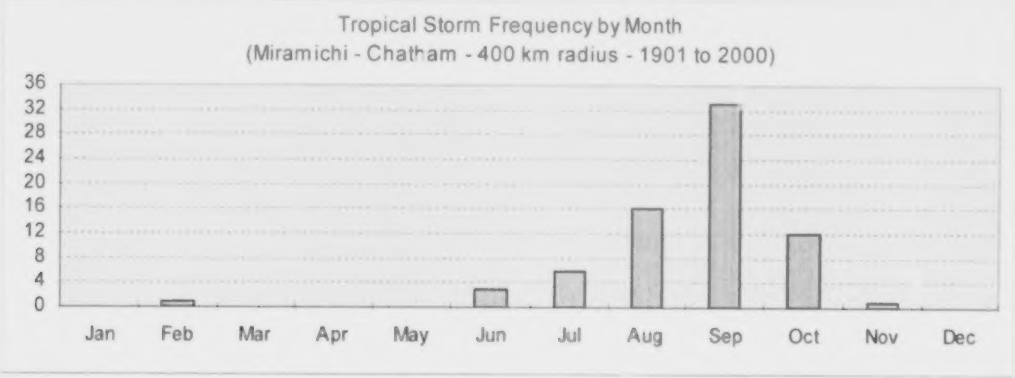






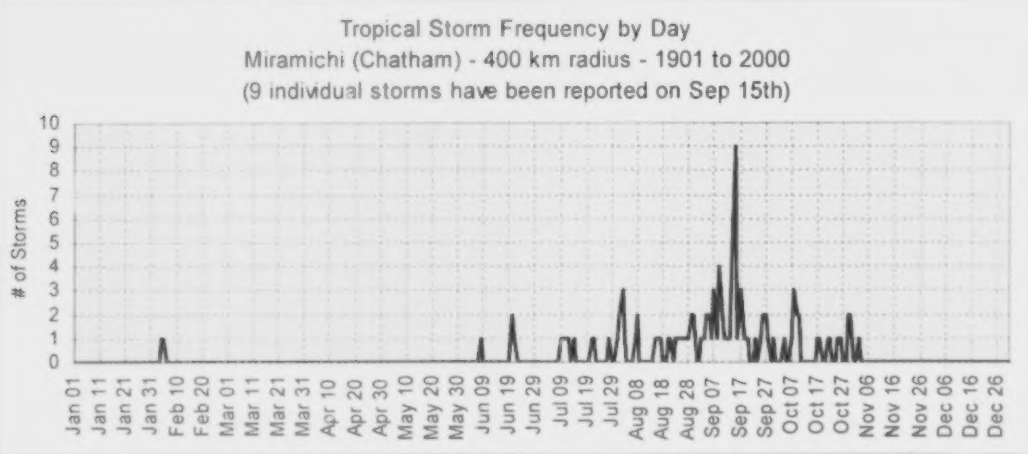
Tropical Storm Frequency by Year
(Miramichi - Chatham - 400 km radius - 1901 to 2000)

Note: Storms that span months were counted in both months

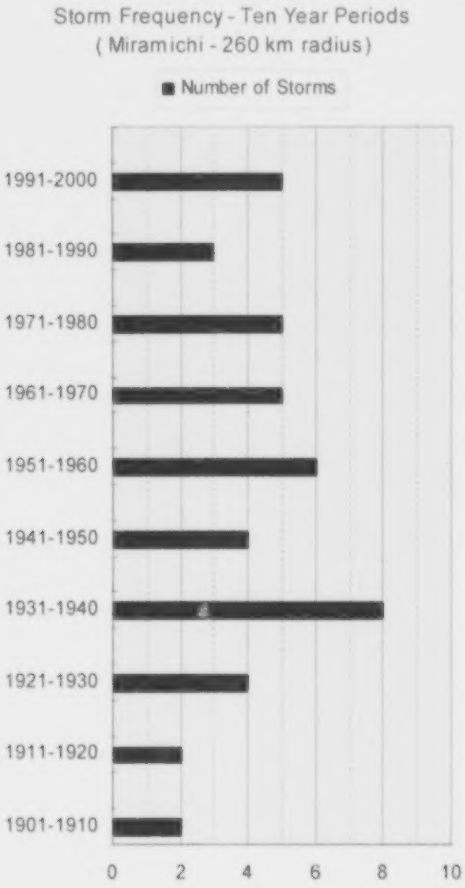


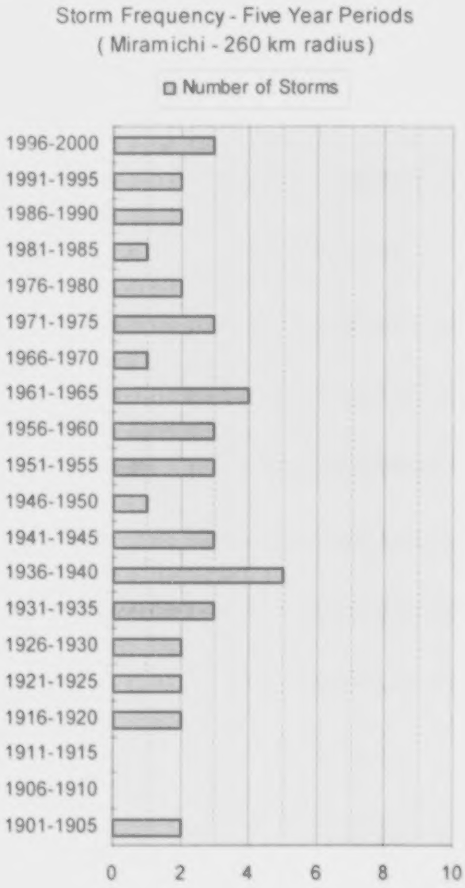
Tropical Storm Frequency by Month
(Miramichi - Chatham - 400 km radius - 1901 to 2000)

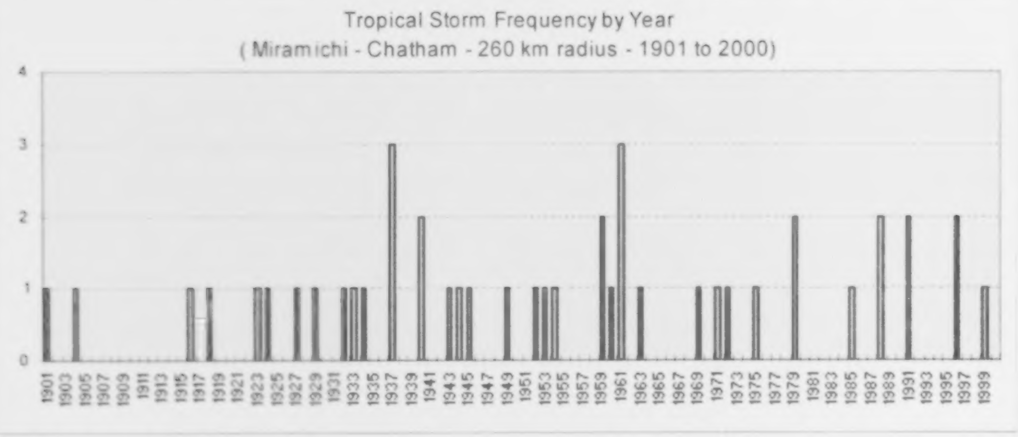
Note: Storms will generally span more than one day. The storm is counted in each day


Tropical Storm Frequency by Day
Miramichi (Chatham) - 400 km radius - 1901 to 2000
(9 individual storms have been reported on Sep 15th)

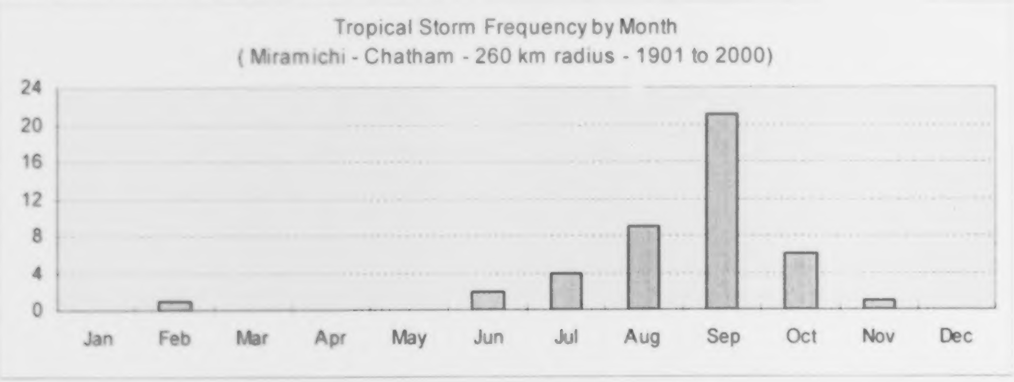
260 km Graphs - Frequency by Time-Periods (1901-2000)


Storm Frequency - Ten Year Periods
(Miramichi - 260 km radius)

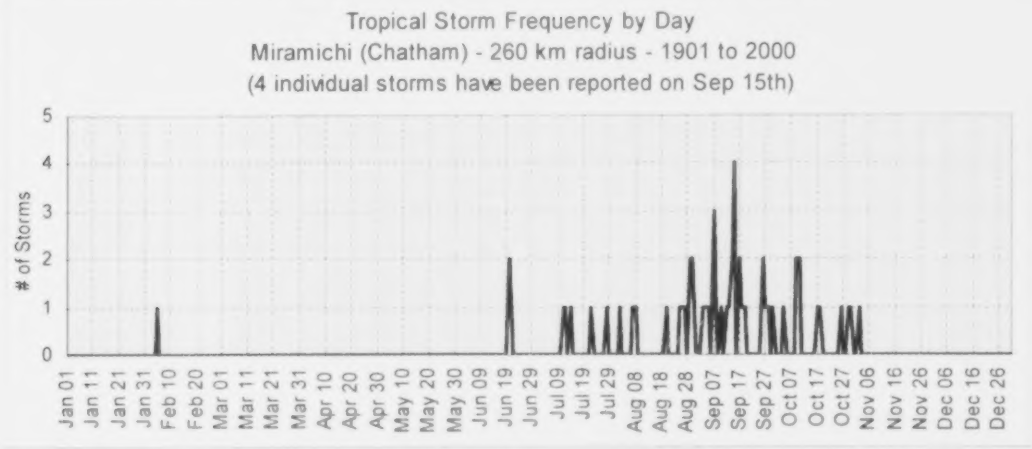

Storm Frequency - Five Year Periods
(Miramichi - 260 km radius)


Tropical Storm Frequency by Year
(Miramichi - Chatham - 260 km radius - 1901 to 2000)

Note: Storms that span months were counted in both months


Tropical Storm Frequency by Month
(Miramichi - Chatham - 260 km radius - 1901 to 2000)

Note: Storms will generally span more than one day. The storm is counted in each day


Tropical Storm Frequency by Day
Miramichi (Chatham) - 260 km radius - 1901 to 2000
(4 individual storms have been reported on Sep 15th)

Miramichi – Summary Statistics 260 km Radius (gale swath)

100 Yr	TD	TS	G	S	S1	S2	S3	S4	S5	H	<H	ALL	Sys-Spd
#	8	28	13	15	4	4	0	0	0	8	36	44	31.9
Return	12.5	3.6	7.7	6.7	25	25	NA	NA	NA	12.5	2.8	2.3	
50 Yr	**TD**	**TS**	**G**	**S**	**S1**	**S2**	**S3**	**S4**	**S5**	**H**	**<H**	**ALL**	**Sys-Spd**
#	3	17	7	10	2	2	0	0	0	4	20	24	32.0
Return	16.7	2.9	7.1	5	25	25	NA	NA	NA	12.5	2.5	2.1	

Miramichi – Summary Statistics 400 km Radius (trace precipitation swath)

100 Yr	TD	TS	G	S	S1	S2	S3	S4	S5	H	<H	ALL	Sys-Spd
#	11	33	17	16	22	5	1	0	0	28	44	72	28.2
Return	9.1	3	5.9	6.3	4.5	20	100	NA	NA	3.6	2.3	1.4	
50 Yr	**TD**	**TS**	**G**	**S**	**S1**	**S2**	**S3**	**S4**	**S5**	**H**	**<H**	**ALL**	**Sys-Spd**
#	5	20	9	11	11	1	1	0	0	13	25	38	28.9
Return	10	2.5	5.6	4.5	4.5	50	50	NA	NA	3.8	2	1.3	

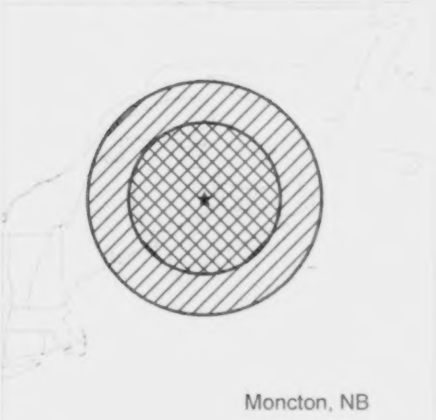
Miramichi – Storms That Tracked Within 400 km of Site (R) and within 260 km of the Site (R/W)

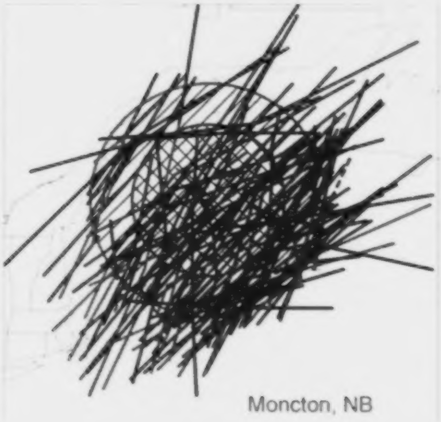
Name	Date	S#	MaxWind (kts)	SS Scale	AvgSysSpd (kts)	Pres (mb)	Comment	ENSO	R(km) R/W
Not Named	Sep 30, 1901	8	30	TD	28.2		E	Neutral	260 TD
Not Named	Sep 15, 1904	2	65	SS1	59.8		E	El Nino	260 R/W
Not Named	Aug 02, 1908	2	85	SS2	23.2			La Nina	400 R
Not Named	Aug 23, 1915	2	25	TD	26.7		E	Neutral	400 TD
Not Named	Jul 21, 1916	2	65	SS1	33.4			La Nina	260 R/W
Not Named	Sep 06, 1918	4	55	TS	19.4			El Nino	260 R/W
Not Named	Oct 26, 1923	4	30	TD	22.8		E	Neutral	260 TD
Not Named	Aug 27, 1924	2	85	SS2	34.9		E	La Nina	260 R/W
Not Named	Sep 04, 1924	3	70	SS1	26.1		E	La Nina	400 R
Not Named	Aug 08, 1926	2	70	SS1	25.8		E	Neutral	400 R
Not Named	Aug 24, 1927	1	90	SS2	53.1		E	Neutral	260 R/W
Not Named	Oct 04, 1929	2	25	TD	28.8		E	El Nino	260 TD
Not Named	Sep 17, 1932	5	35	TS	25.0		E	Neutral	260 R/W
Not Named	Aug 26, 1933	8	25	TD	17.4			Neutral	260 TD

Name	Date	S#	MaxWind (kts)	SS Scale	AvgSysSpd (kts)	Pres (mb)	Comment	ENSO	R(km) R/W
Not Named	Sep 18, 1933	13	65	SS1	21.2		E	Neutral	400 R
Not Named	Oct 08, 1933	18	85	SS2	11.2		E	Neutral	400 R
Not Named	Oct 29, 1933	20	60	TS	12.3		E	Neutral	400 R
Not Named	Jun 20, 1934	2	40	TS	20.3		E	Neutral	260 R/W
Not Named	Sep 09, 1934	6	40	TS	25.5		E	Neutral	400 R
Not Named	Sep 25, 1936	15	75	SS1	26.0		E	Neutral	400 R
Not Named	Aug 01, 1937	1	45	TS	12.5			Neutral	260 R/W
Not Named	Sep 14, 1937	4	55	TS	26.5			Neutral	260 R/W
Not Named	Sep 26, 1937	7	80	SS1	25.2		E	Neutral	260 R/W
Not Named	Sep 02, 1940	4	65	SS1	22.8			El Nino	260 R/W
Not Named	Sep 17, 1940	5	65	SS1	17.1			El Nino	260 R/W
Not Named	Sep 09, 1943	4	60	TS	34.2			Neutral	400 R
Not Named	Sep 15, 1943	5	40	TS	22.3		E	Neutral	400 R
Not Named	Oct 17, 1943	9	40	TS	38.3		E	Neutral	260 R/W
Not Named	Sep 15, 1944	7	65	SS1	36.8	966		La Nina	260 R/W
Not Named	Oct 22, 1944	11	45	TS	31.9		E	La Nina	400 R
Not Named	Sep 19, 1945	9	25	TD	35.1		E	Neutral	260 TD
Not Named	Sep 15, 1946	4	60	TS	28.6		E	Neutral	400 R
Not Named	Aug 29, 1949	2	35	TS	34.8		E	La Nina	260 R/W
Able	Aug 21, 1950	1	65	SS1	26.8			Neutral	400 R
Not Named	Feb 04, 1952	1	50	TS	30.9		E	Neutral	260 R/W
Barbara	Aug 15, 1953	2	70	SS1	35.0		E	Neutral	400 R
Carol	Sep 07, 1953	4	65	SS1	31.9			Neutral	260 R/W
Not Named	Oct 08, 1953	10	60	TS	22.9		E	Neutral	400 R
Edna	Sep 11, 1954	5	80	SS1	44.1			La Nina	260 R/W
Not Named	Jun 20, 1959	3	70	SS1	12.7		E	Neutral	260 R/W
Cindy	Jul 11, 1959	4	50	TS	29.7		E	Neutral	260 R/W
Brenda	Jul 31, 1960	3	40	TS	33.8			Neutral	400 R
Donna	Sep 13, 1960	5	75	SS1	38.5			Neutral	260 R/W
Esther	Sep 26, 1961	5	30	TD	18.8	1002		Neutral	260 TD
Not Named	Sep 15, 1961	6	35	TS	60.6			Neutral	260 R/W
Frances	Oct 09, 1961	7	40	TS	22.1		E	Neutral	260 R/W
Daisy	Oct 07, 1962	4	65	SS1	14.0			Neutral	400 R
Ginny	Oct 29, 1963	8	95	SS2	29.1	958		El Nino	260 R/W
Dora	Sep 15, 1964	6	55	TS	25.0		E	La Nina	400 R
Gladys	Oct 21, 1968	8	65	SS1	30.1			Neutral	400 R
Gerda	Sep 09, 1969	7	110	SS3	44.9	979		El Nino	260 R/W
Beth	Aug 16, 1971	3	65	SS1	16.5	984		La Nina	400 R
Doria	Aug 28, 1971	5	45	TS	24.8			La Nina	260 R/W
Heidi	Sep 14, 1971	9	40	TS	18.1	998		La Nina	400 R
Carrie	Sep 04, 1972	4	50	TS	12.2		E	El Nino	260 R/W
Alfa	Aug 01, 1973	2	25	TD	14.3	1008	S	La Nina	400 TD
Blanche	Jul 28, 1975	2	70	SS1	33.5	980		La Nina	260 R/W
David	Sep 07, 1979	4	50	TS	34.3	988	E	Neutral	260 R/W
Frederic	Sep 14, 1979	6	30	TD	78.7	998	E	Neutral	260 TD
Gloria	Sep 27, 1985	7	75	SS1	30.5	964		Neutral	260 R/W
Alberto	Aug 07, 1988	1	35	TS	26.5	1002		La Nina	260 R/W
Chris	Aug 30, 1988	3	25	TD	38.1	1008		La Nina	260 TD
Hugo	Sep 23, 1989	8	40	TS	40.2	990	E	Neutral	400 R
Bob	Aug 20, 1991	2	60	TS	24.6	977		El Nino	260 R/W
Unnamed	Nov 02, 1991	8	60	TS	24.7	988		El Nino	260 R/W
Allison	Jun 08, 1995	1	50	TS	22.5	984	E	Neutral	400 R
Barry	Jul 09, 1995	2	50	TS	22.7	991		Neutral	400 R
Bertha	Jul 14, 1996	2	55	TS	31.0	995		Neutral	260 R/W
Fran	Sep 09, 1996	6	15	TD	10.3	1008	E	Neutral	400 TD

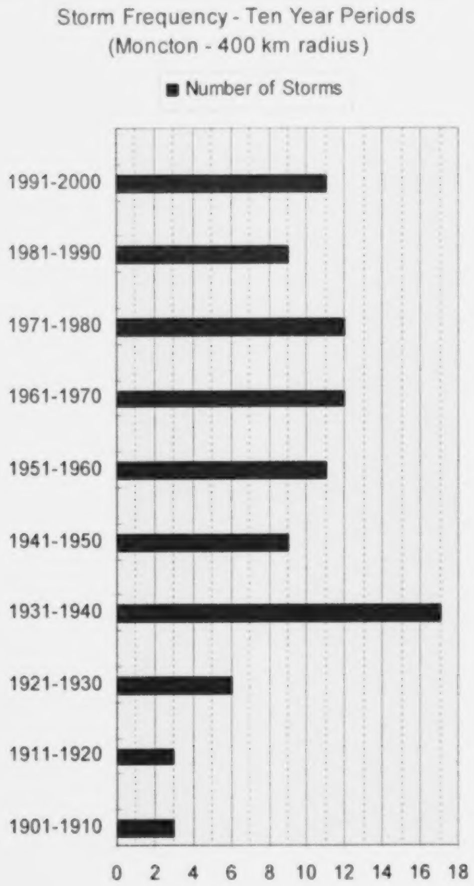
Name	Date	S#	MaxWind (kts)	SS Scale	AvgSysSpd (kts)	Pres (mb)	Comment	ENSO	R(km) R/W
Hortense	Sep 14, 1996	8	75	SS1	21.0	960		Neutral	400 R
Josephine	Oct 09, 1996	10	45	TS	30.8	980	E	Neutral	260 R/W
Floyd	Sep 17, 1999	6	45	TS	18.9	985	E	La Nina	260 R/W

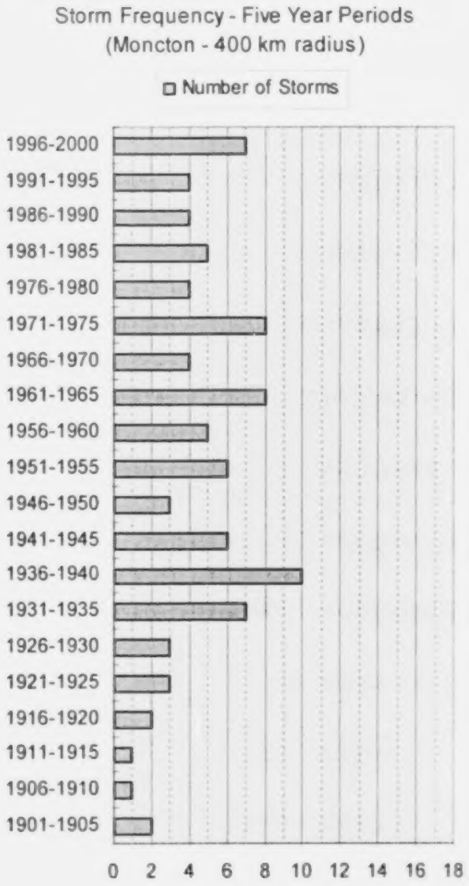
Moncton

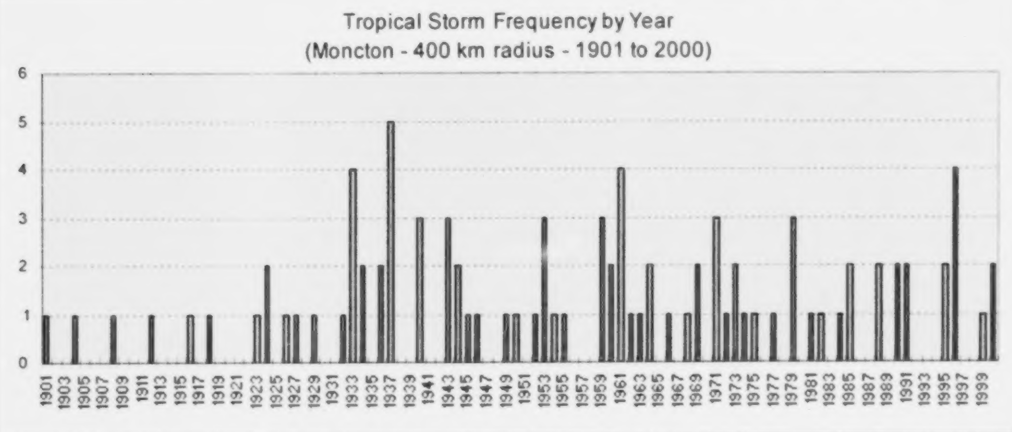




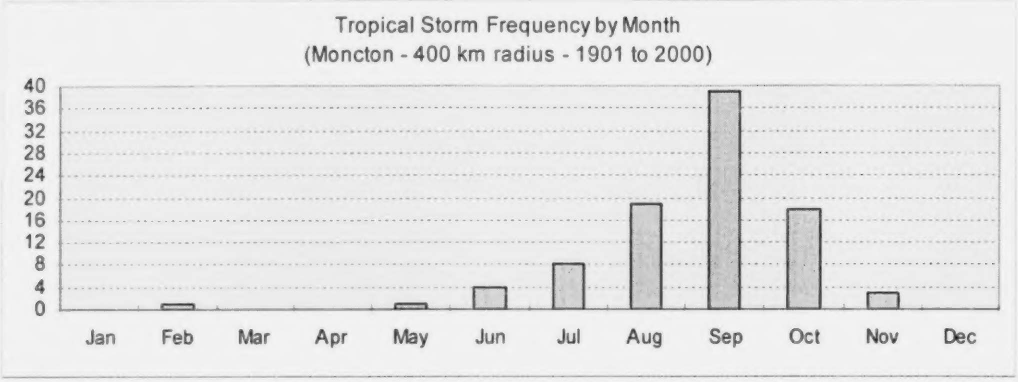
400 km Graphs - Frequency by Time-Periods (1901-2000)



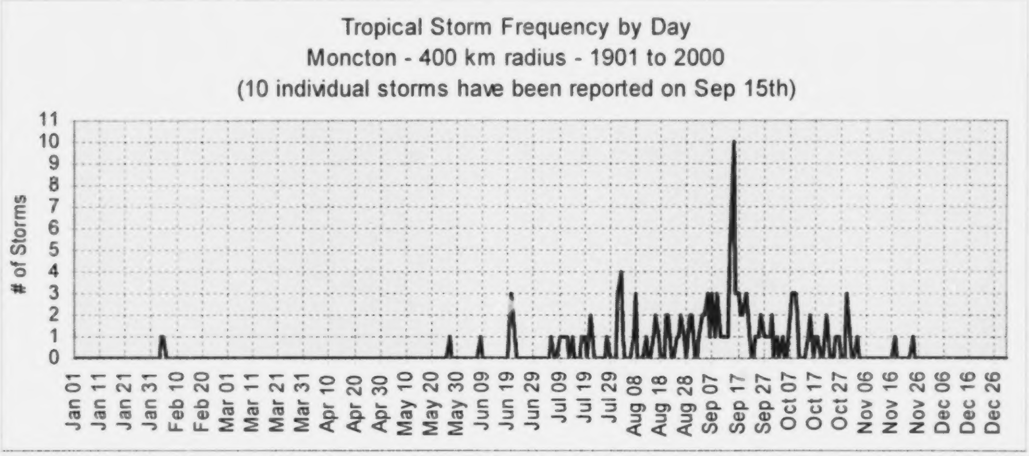




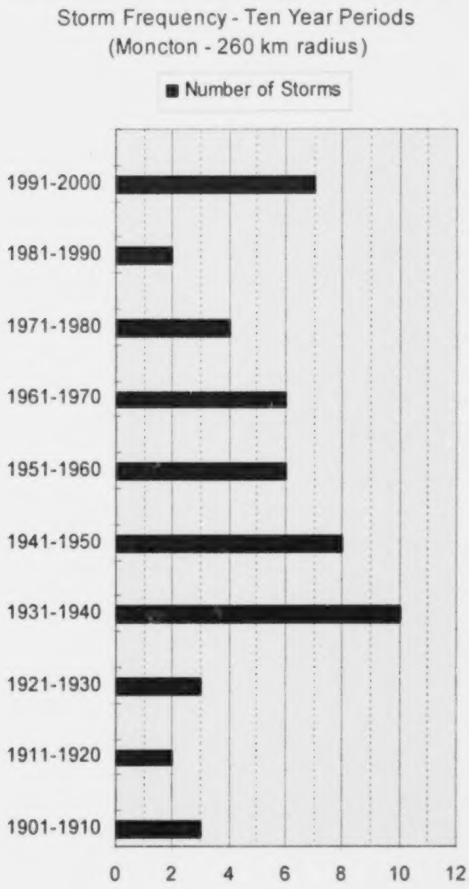
Note: Storms that span months were counted in both months

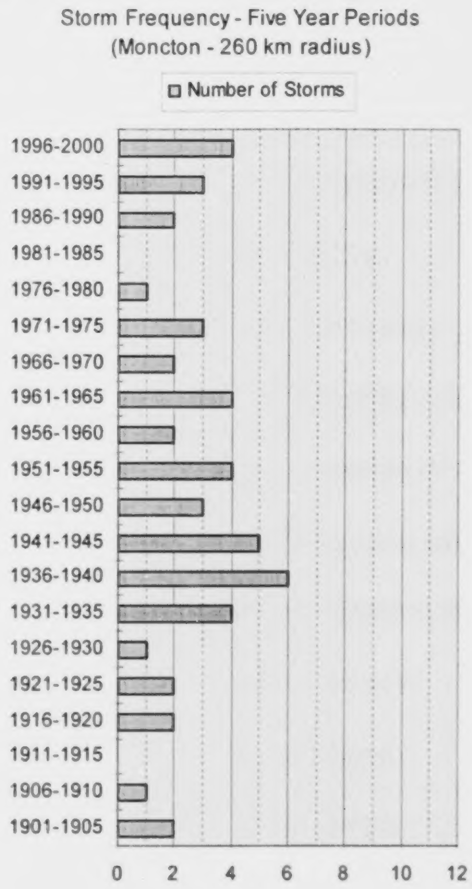


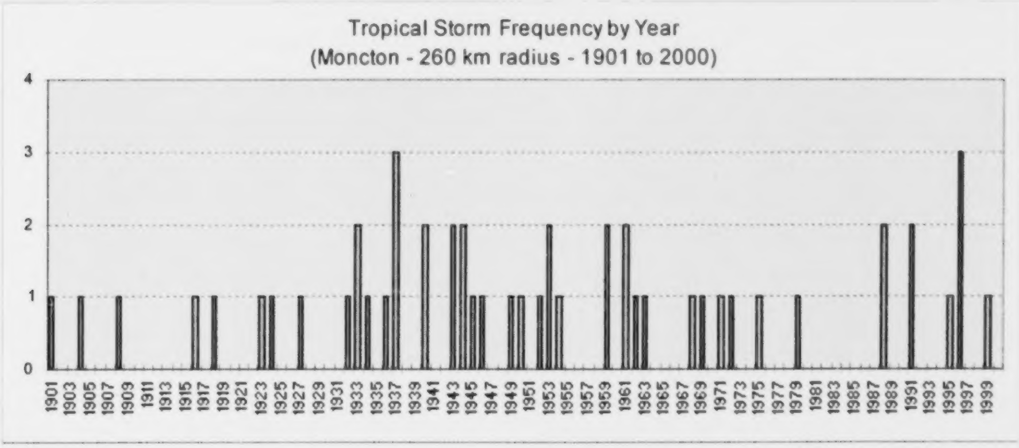
Note: Storms will generally span more than one day. The storm is counted in each day



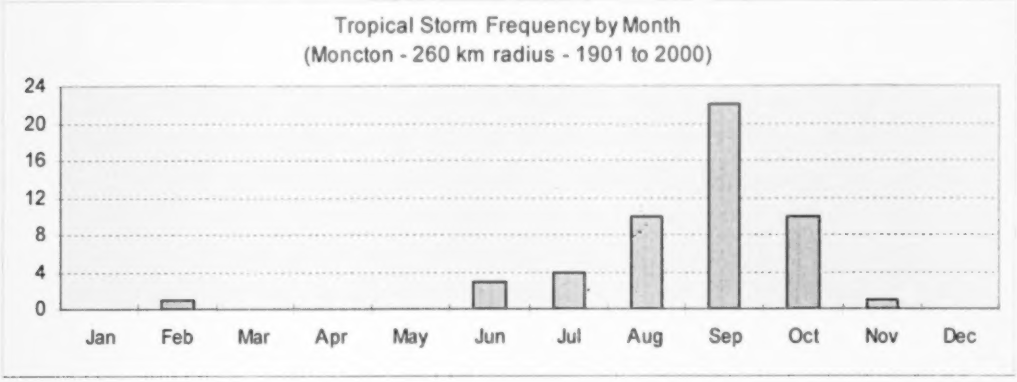
260 km Graphs - Frequency by Time-Periods (1901-2000)



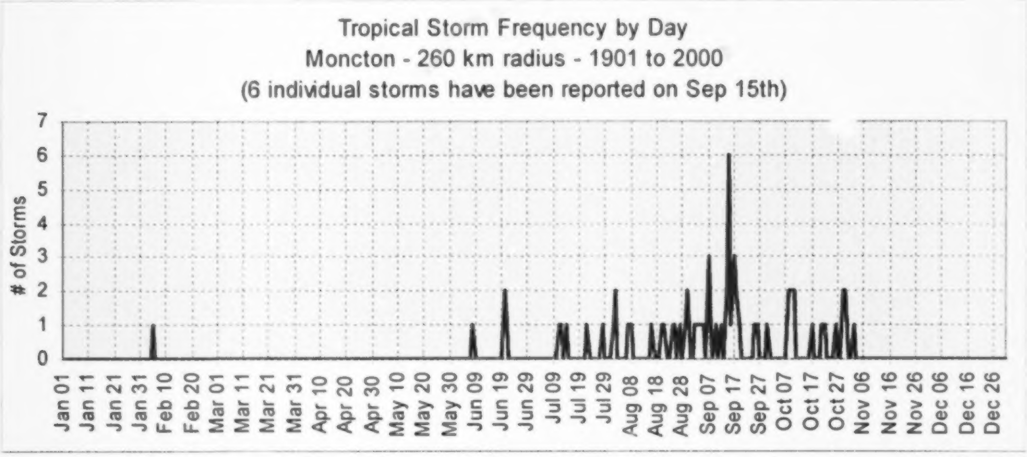




Note: Storms that span months were counted in both months



Note: Storms will generally span more than one day. The storm is counted in each day



Moncton – Summary Statistics 260 km Radius (gale swath)

100 Yr	**TD**	**TS**	**G**	**S**	**S1**	**S2**	**S3**	**S4**	**S5**	**H**	**<H**	**ALL**	**Sys-Spd**
#	4	29	14	15	13	5	0	0	0	18	33	51	28.3
Return	25	3.4	7.1	6.7	7.7	20	NA	NA	NA	5.6	3	2	
50 Yr	**TD**	**TS**	**G**	**S**	**S1**	**S2**	**S3**	**S4**	**S5**	**H**	**<H**	**ALL**	**Sys-Spd**
#	1	15	6	9	7	2	0	0	0	9	16	25	28.0
Return	50	3.3	8.3	5.6	7.1	25	NA	NA	NA	5.6	3.1	2	

Moncton – Summary Statistics 400 km Radius (trace precipitation swath)

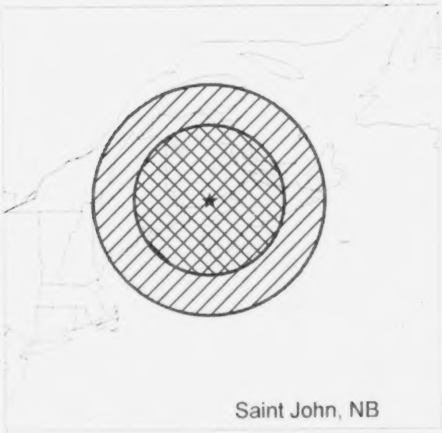
100 Yr	**TD**	**TS**	**G**	**S**	**S1**	**S2**	**S3**	**S4**	**S5**	**H**	**<H**	**ALL**	**Sys-Spd**
#	12	45	18	27	30	5	1	0	0	36	57	93	28.4
Return	8.3	2.2	5.6	3.7	3.3	20	100	NA	NA	2.8	1.8	1.1	
50 Yr	**TD**	**TS**	**G**	**S**	**S1**	**S2**	**S3**	**S4**	**S5**	**H**	**<H**	**ALL**	**Sys-Spd**
#	6	31	8	23	16	1	1	0	0	18	37	55	29.1
Return	8.3	1.6	6.3	2.2	3.1	50	50	NA	NA	2.8	1.4	0.9	

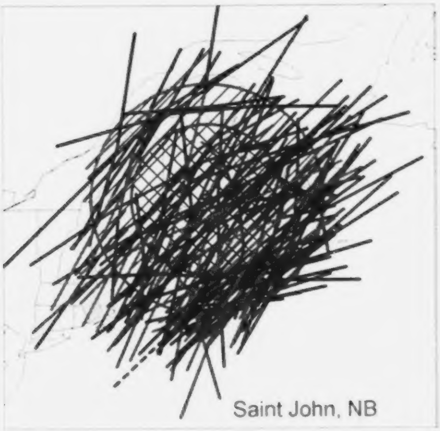
Moncton – Storms That Tracked Within 400 km of Site (R) and within 260 km of the Site (R/W)

Name	**Date**	**S#**	**MaxWind (kts)**	**SS Scale**	**AvgSysSpd (kts)**	**Pres (mb)**	**Comment**	**ENSO**	**R(km) R/W**
Not Named	Sep 30, 1901	8	30	TD	28.2		E	Neutral	260 TD
Not Named	Sep 15, 1904	2	65	SS1	59.8		E	El Nino	260 R/W
Not Named	Aug 02, 1908	2	85	SS2	22.9			La Nina	260 R/W
Not Named	Nov 24, 1912	6	60	TS	36.8		E	Neutral	400 R
Not Named	Jul 21, 1916	2	65	SS1	33.4			La Nina	260 R/W
Not Named	Sep 06, 1918	4	55	TS	19.4			El Nino	260 R/W
Not Named	Oct 26, 1923	4	30	TD	22.2		E	Neutral	260 TD
Not Named	Aug 26, 1924	2	90	SS2	35.6			La Nina	260 R/W
Not Named	Sep 04, 1924	3	70	SS1	25.9		E	La Nina	400 R
Not Named	Aug 08, 1926	2	75	SS1	25.0			Neutral	400 R
Not Named	Aug 24, 1927	1	90	SS2	53.1		E	Neutral	260 R/W
Not Named	Oct 04, 1929	2	25	TD	36.5		E	El Nino	400 TD
Not Named	Sep 17, 1932	5	35	TS	25.0		E	Neutral	260 R/W
Not Named	Aug 26, 1933	8	20	TD	18.9			Neutral	400 TD
Not Named	Sep 18, 1933	13	65	SS1	21.2		E	Neutral	260 R/W
Not Named	Oct 08, 1933	18	90	SS2	17.8		E	Neutral	400 R
Not Named	Oct 29, 1933	20	60	TS	13.3		E	Neutral	260 R/W
Not Named	Jun 20, 1934	2	40	TS	20.3		E	Neutral	260 R/W
Not Named	Sep 09, 1934	6	40	TS	25.5		E	Neutral	400 R
Not Named	Sep 19, 1936	13	80	SS1	32.0			Neutral	400 R
Not Named	Sep 25, 1936	15	75	SS1	26.0		E	Neutral	260 R/W
Not Named	Aug 01, 1937	1	45	TS	12.5			Neutral	260 R/W
Not Named	Aug 08, 1937	2	40	TS	14.7			Neutral	400 R
Not Named	Sep 14, 1937	4	60	TS	26.7			Neutral	260 R/W
Not Named	Sep 26, 1937	7	80	SS1	25.2		E	Neutral	260 R/W
Not Named	Sep 29, 1937	8	35	TS	24.3		E	Neutral	400 R
Not Named	May 27, 1940	1	25	TD	17.5			El Nino	400 TD
Not Named	Sep 02, 1940	4	65	SS1	22.8			El Nino	260 R/W
Not Named	Sep 16, 1940	5	70	SS1	17.0			El Nino	260 R/W
Not Named	Sep 09, 1943	4	70	SS1	28.2			Neutral	400 R
Not Named	Sep 15, 1943	5	40	TS	23.4		E	Neutral	260 R/W
Not Named	Oct 17, 1943	9	40	TS	38.3		E	Neutral	260 R/W
Not Named	Sep 15, 1944	7	65	SS1	36.8	966		La Nina	260 R/W
Not Named	Oct 22, 1944	11	45	TS	31.9		E	La Nina	260 R/W
Not Named	Sep 19, 1945	9	25	TD	35.1		E	Neutral	260 TD
Not Named	Sep 15, 1946	4	65	SS1	27.1			Neutral	260 R/W
Not Named	Aug 29, 1949	2	35	TS	38.3		E	La Nina	260 R/W
Able	Aug 21, 1950	1	65	SS1	26.8			Neutral	260 R/W
Not Named	Feb 04, 1952	1	50	TS	30.9		E	Neutral	260 R/W
Barbara	Aug 15, 1953	2	75	SS1	34.0			Neutral	400 R
Carol	Sep 07, 1953	4	70	SS1	32.3			Neutral	260 R/W
Not Named	Oct 07, 1953	10	60	TS	21.5		E	Neutral	260 R/W
Edna	Sep 11, 1954	5	80	SS1	44.1			La Nina	260 R/W
Ione	Sep 21, 1955	9	60	TS	35.1		E	La Nina	400 R
Not Named	Jun 20, 1959	3	70	SS1	15.0		E	Neutral	260 R/W

Name	Date	S#	MaxWind (kts)	SS Scale	AvgSysSpd (kts)	Pres (mb)	Comment	ENSO	R(km) R/W
Cindy	Jul 11, 1959	4	50	TS	29.8			Neutral	260 R/W
Gracie	Oct 02, 1959	8	25	TD	32.3		E	Neutral	400 TD
Cleo	Aug 20, 1960	4	60	TS	20.0			Neutral	400 R
Donna	Sep 13, 1960	5	75	SS1	38.8			Neutral	400 R
Esther	Sep 26, 1961	5	30	TD	18.8	1002		Neutral	400 TD
Not Named	Sep 15, 1961	6	35	TS	60.6			Neutral	260 R/W
Frances	Oct 09, 1961	7	65	SS1	16.5			Neutral	260 R/W
Gerda	Oct 21, 1961	8	60	TS	16.8	993	E	Neutral	400 R
Daisy	Oct 07, 1962	4	65	SS1	14.9			Neutral	260 R/W
Ginny	Oct 29, 1963	8	95	SS2	29.1	958		El Nino	260 R/W
Dora	Sep 14, 1964	6	55	TS	28.5		E	La Nina	400 R
Gladys	Sep 24, 1964	9	65	SS1	36.2	982		La Nina	400 R
Celia	Jul 21, 1966	3	65	SS1	37.6	998		Neutral	400 R
Gladys	Oct 21, 1968	8	65	SS1	30.1			Neutral	260 R/W
Blanche	Aug 12, 1969	2	75	SS1	42.5			El Nino	400 R
Gerda	Sep 09, 1969	7	110	SS3	44.9	979		El Nino	260 R/W
Beth	Aug 16, 1971	3	65	SS1	14.8	978		La Nina	260 R/W
Doria	Aug 29, 1971	5	35	TS	24.2		E	La Nina	400 R
Heidi	Sep 14, 1971	9	40	TS	18.1	998		La Nina	400 R
Carrie	Sep 04, 1972	4	50	TS	12.2		E	El Nino	260 R/W
Alice	Jul 06, 1973	1	60	TS	30.8			La Nina	400 R
Alfa	Aug 01, 1973	2	25	TD	14.3	1008	S	La Nina	400 TD
Dolly	Sep 05, 1974	7	40	TS	31.7			Neutral	400 R
Blanche	Jul 28, 1975	2	70	SS1	33.5	980		La Nina	260 R/W
Evelyn	Oct 15, 1977	5	70	SS1	26.3	996		Neutral	400 R
David	Sep 07, 1979	4	50	TS	34.3	988	E	Neutral	260 R/W
Frederic	Sep 14, 1979	6	30	TD	78.7	998	E	Neutral	400 TD
Subtrop 1	Oct 25, 1979	9	60	TS	44.0	980	S	Neutral	400 R
Subtrop 3	Nov 17, 1981	12	50	TS	17.8	985	S	Neutral	400 R
Subtrop 1	Jun 20, 1982	2	60	TS	44.6	988	S	El Nino	400 R
Diana	Sep 15, 1984	5	60	TS	38.8	992		Neutral	400 R
Ana	Jul 19, 1985	1	60	TS	27.5	996		Neutral	400 R
Gloria	Sep 28, 1985	7	50	TS	26.9	986	E	Neutral	400 R
Alberto	Aug 07, 1988	1	35	TS	26.5	1002		La Nina	260 R/W
Chris	Aug 30, 1988	3	25	TD	38.1	1008		La Nina	260 TD
Bertha	Aug 02, 1990	2	70	SS1	20.6	973		Neutral	400 R
Lili	Oct 14, 1990	12	45	TS	37.3	995		Neutral	400 R
Bob	Aug 20, 1991	2	60	TS	24.6	977		El Nino	260 R/W
Unnamed	Nov 02, 1991	8	60	TS	24.7	988		El Nino	260 R/W
Allison	Jun 08, 1995	1	50	TS	22.5	984	E	Neutral	260 R/W
Barry	Jul 09, 1995	2	50	TS	22.6	993		Neutral	400 R
Bertha	Jul 14, 1996	2	55	TS	31.0	995		Neutral	260 R/W
Edouard	Sep 03, 1996	5	50	TS	14.9	992	E	Neutral	400 R
Hortense	Sep 14, 1996	8	75	SS1	21.0	960		Neutral	260 R/W
Josephine	Oct 09, 1996	10	45	TS	30.8	980	E	Neutral	260 R/W
Floyd	Sep 17, 1999	6	45	TS	18.2	984	E	La Nina	260 R/W
Gordon	Sep 20, 2000	7	30	TD	16.1	1005	E	La Nina	400 TD
Subtrop	Oct 29, 2000	15	50	TS	20.3	980	E	La Nina	400 R

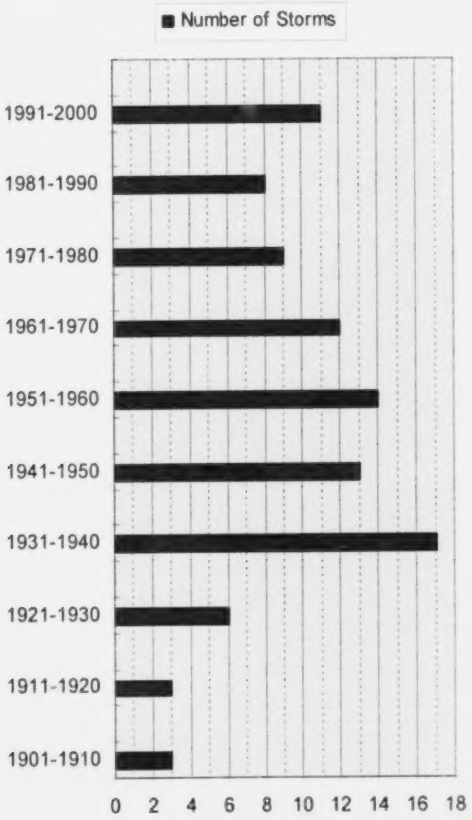
Saint John



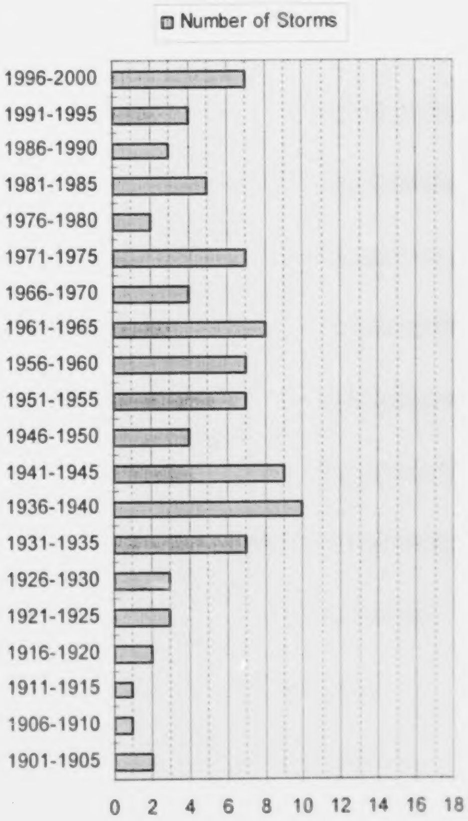


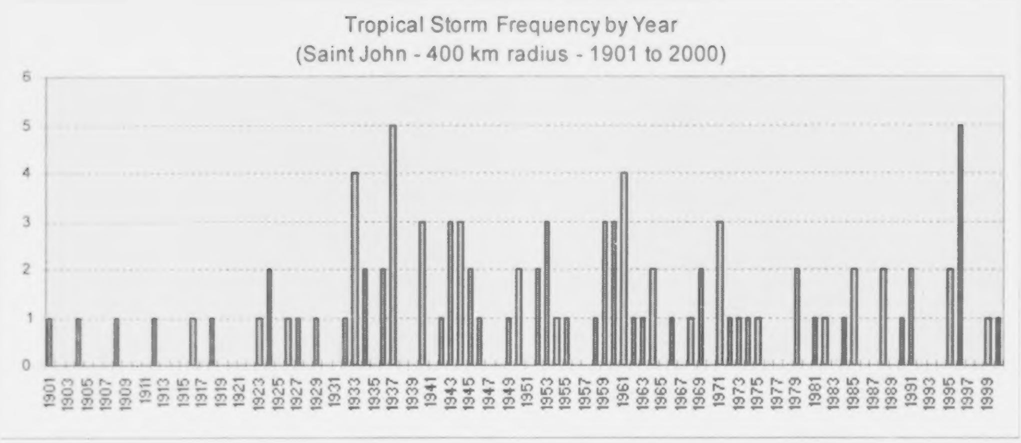
400 km Graphs - Frequency by Time-Periods (1901-2000)

Storm Frequency - Ten Year Periods
(Saint John - 400 km radius)

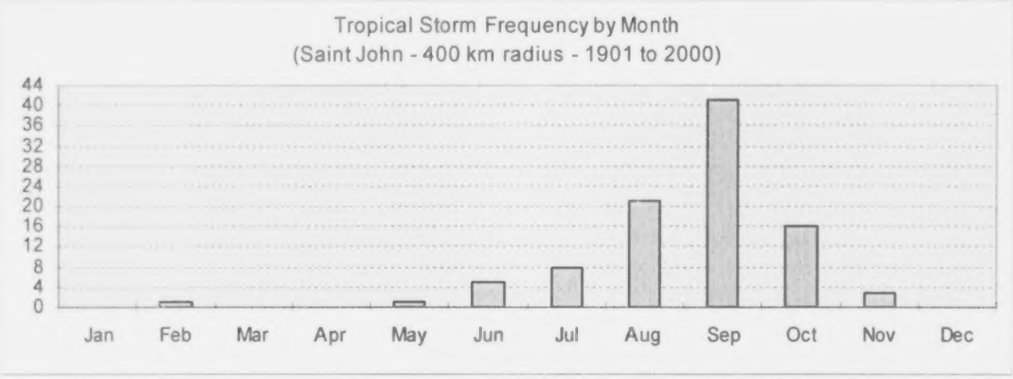


Storm Frequency - Five Year Periods
(Saint John - 400 km radius)

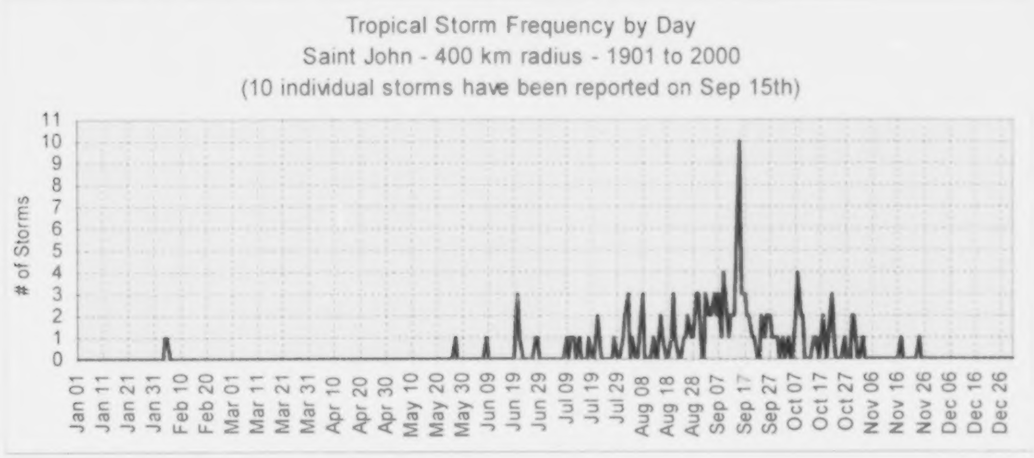




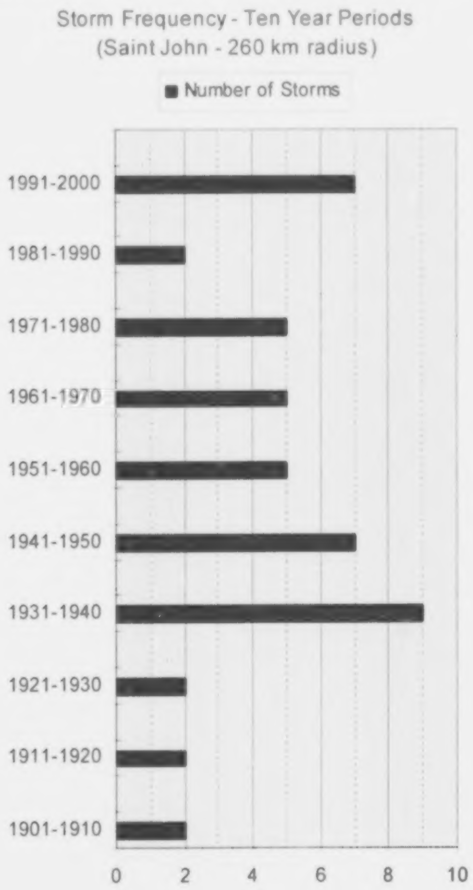
Note: Storms that span months were counted in both months

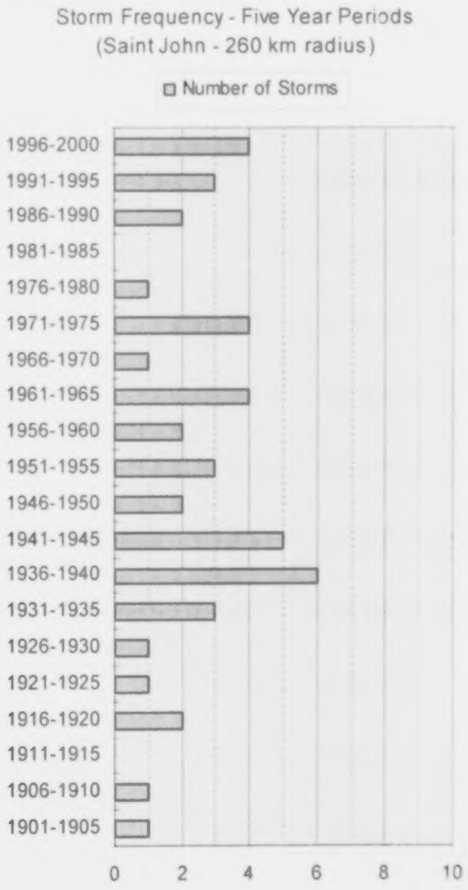


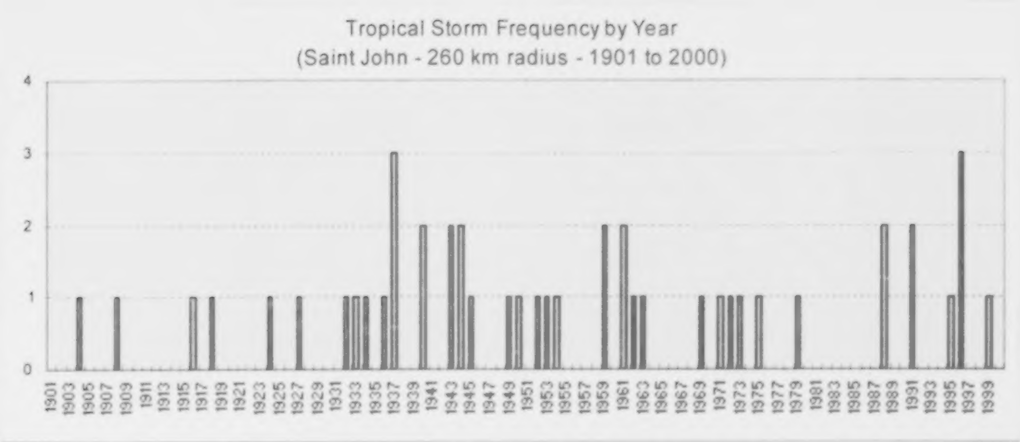
Note: Storms will generally span more than one day. The storm is counted in each day



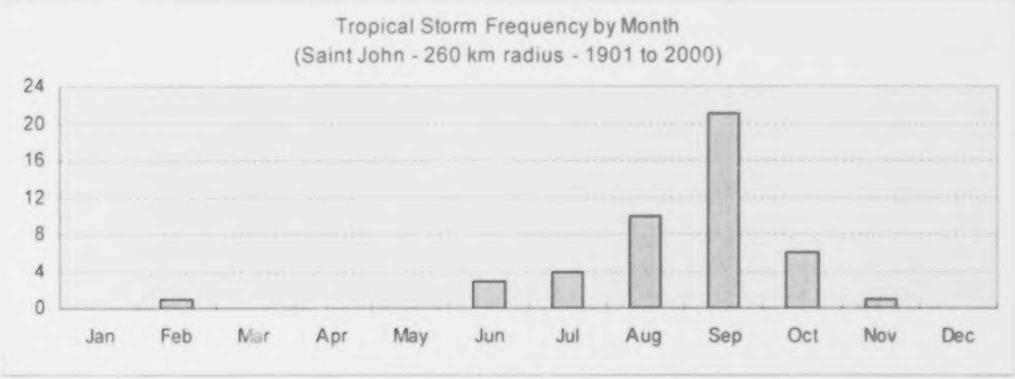
260 km Graphs - Frequency by Time-Periods (1901-2000)



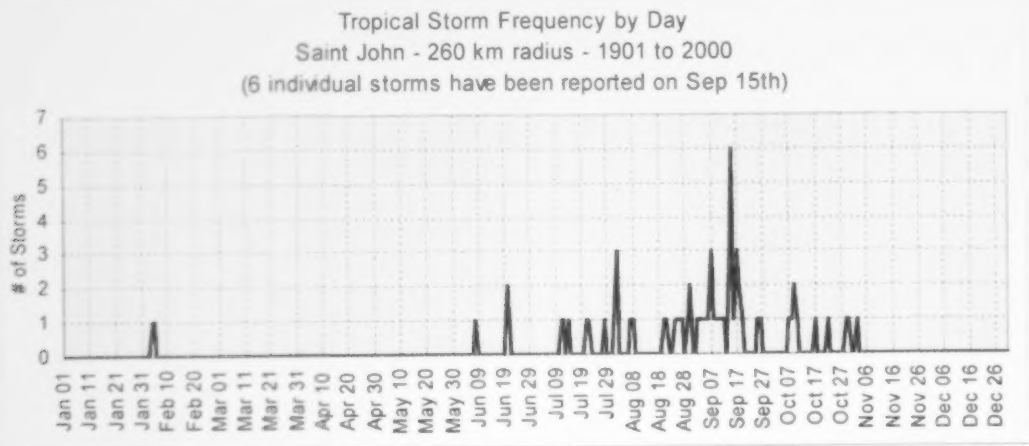




Note: Storms that span months were counted in both months



Note: Storms will generally span more than one day. The storm is counted in each day



Tropical Storm Frequency by Day
Saint John - 260 km radius - 1901 to 2000
(6 individual storms have been reported on Sep 15th)

Saint John – Summary Statistics 260 km Radius (gale swath)

100 Yr	**TD**	**TS**	**G**	**S**	**S1**	**S2**	**S3**	**S4**	**S5**	**H**	**<H**	**ALL**	**Sys-Spd**
#	3	24	12	12	14	4	1	0	0	19	27	46	28.4
Return	33.3	4.2	8.3	8.3	7.1	25	100	NA	NA	5.3	3.7	2.2	
50 Yr	**TD**	**TS**	**G**	**S**	**S1**	**S2**	**S3**	**S4**	**S5**	**H**	**<H**	**ALL**	**Sys-Spd**
#	2	15	5	10	5	1	1	0	0	7	17	24	27.3
Return	25	3.3	10	5	10	50	50	NA	NA	7.1	2.9	2.1	

Saint John – Summary Statistics 400 km Radius (trace precipitation swath)

100 Yr	**TD**	**TS**	**G**	**S**	**S1**	**S2**	**S3**	**S4**	**S5**	**H**	**<H**	**ALL**	**Sys-Spd**
#	13	43	20	23	31	8	1	0	0	40	56	96	27.1
Return	7.7	2.3	5	4.3	3.2	12.5	100	NA	NA	2.5	1.8	1	
50 Yr	**TD**	**TS**	**G**	**S**	**S1**	**S2**	**S3**	**S4**	**S5**	**H**	**<H**	**ALL**	**Sys-Spd**
#	7	26	9	17	16	4	1	0	0	21	33	54	27.8
Return	7.1	1.9	5.6	2.9	3.1	12.5	50	NA	NA	2.4	1.5	0.9	

Saint John – Storms That Tracked Within 400 km of Site (R) and within 260 km of the Site (R/W)

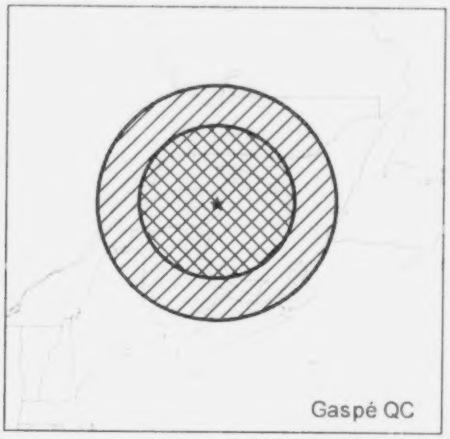
Name	**Date**	**S#**	**MaxWind (kts)**	**SS Scale**	**AvgSysSpd (kts)**	**Pres (mb)**	**Comment**	**ENSO**	**R(km) R/W**
Not Named	Sep 30, 1901	8	30	TD	28.2		E	Neutral	400 TD
Not Named	Sep 15, 1904	2	65	SS1	59.8		E	El Nino	260 R/W
Not Named	Aug 02, 1908	2	85	SS2	23.6			La Nina	260 R/W
Not Named	Nov 24, 1912	6	60	TS	36.8		E	Neutral	400 R
Not Named	Jul 21, 1916	2	65	SS1	27.1			La Nina	260 R/W
Not Named	Sep 06, 1918	4	65	SS1	20.3			El Nino	260 R/W
Not Named	Oct 26, 1923	4	25	TD	23.5		E	Neutral	400 TD
Not Named	Aug 26, 1924	2	90	SS2	35.6			La Nina	260 R/W
Not Named	Sep 04, 1924	3	70	SS1	25.9		E	La Nina	400 R
Not Named	Aug 08, 1926	2	75	SS1	25.0			Neutral	400 R
Not Named	Aug 24, 1927	1	90	SS2	53.1		E	Neutral	260 R/W
Not Named	Oct 04, 1929	2	25	TD	28.8		E	El Nino	400 TD
Not Named	Sep 17, 1932	5	35	TS	25.0		E	Neutral	260 R/W
Not Named	Aug 26, 1933	8	25	TD	17.4			Neutral	400 TD

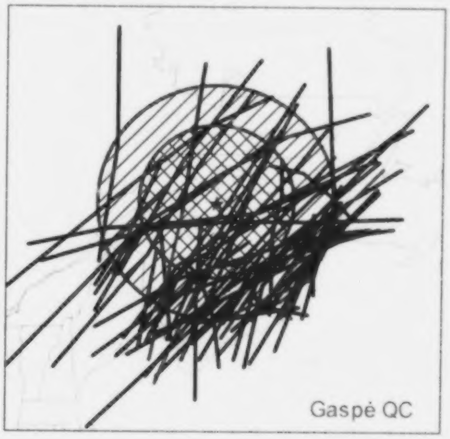
Name	Date	S#	MaxWind (kts)	SS Scale	AvgSysSpd (kts)	Pres (mb)	Comment	ENSO	R(km) R/W
Not Named	Sep 18, 1933	13	65	SS1	22.8		E	Neutral	260 R/W
Not Named	Oct 08, 1933	18	90	SS2	12.4		E	Neutral	400 R
Not Named	Oct 29, 1933	20	60	TS	14.3		E	Neutral	400 R
Not Named	Jun 20, 1934	2	40	TS	21.3		E	Neutral	260 R/W
Not Named	Sep 09, 1934	6	40	TS	25.5		E	Neutral	400 R
Not Named	Sep 19, 1936	13	80	SS1	31.3			Neutral	400 R
Not Named	Sep 24, 1936	15	75	SS1	23.0			Neutral	260 R/W
Not Named	Aug 01, 1937	1	50	TS	14.1			Neutral	260 R/W
Not Named	Aug 07, 1937	2	45	TS	13.7			Neutral	400 R
Not Named	Sep 14, 1937	4	60	TS	26.7			Neutral	260 R/W
Not Named	Sep 26, 1937	7	80	SS1	25.2		E	Neutral	260 R/W
Not Named	Sep 29, 1937	8	35	TS	23.3		E	Neutral	400 R
Not Named	May 27, 1940	1	25	TD	17.5			El Nino	400 TD
Not Named	Sep 02, 1940	4	70	SS1	21.2			El Nino	260 R/W
Not Named	Sep 16, 1940	5	70	SS1	18.5			El Nino	260 R/W
Not Named	Oct 18, 1942	9	35	TS	37.9			La Nina	400 R
Not Named	Sep 09, 1943	4	70	SS1	28.2			Neutral	400 R
Not Named	Sep 15, 1943	5	40	TS	23.0		E	Neutral	260 R/W
Not Named	Oct 17, 1943	9	40	TS	38.3		E	Neutral	260 R/W
Not Named	Aug 04, 1944	3	35	TS	10.6			La Nina	400 R
Not Named	Sep 15, 1944	7	65	SS1	36.8	966		La Nina	260 R/W
Not Named	Oct 21, 1944	11	45	TS	32.2		E	La Nina	260 R/W
Not Named	Jun 27, 1945	1	55	TS	13.0			Neutral	400 R
Not Named	Sep 19, 1945	9	25	TD	30.7		E	Neutral	260 TD
Not Named	Sep 15, 1946	4	65	SS1	27.1			Neutral	400 R
Not Named	Aug 29, 1949	2	35	TS	38.3		E	La Nina	260 R/W
Able	Aug 21, 1950	1	65	SS1	26.8			Neutral	260 R/W
Dog	Sep 12, 1950	4	60	TS	13.2		E	Neutral	400 R
Not Named	Feb 04, 1952	1	50	TS	30.9		E	Neutral	260 R/W
Able	Sep 02, 1952	2	25	TD	10.3			Neutral	400 TD
Barbara	Aug 15, 1953	2	75	SS1	33.3			Neutral	400 R
Carol	Sep 07, 1953	4	70	SS1	32.9			Neutral	260 R/W
Not Named	Oct 07, 1953	10	60	TS	18.7		E	Neutral	400 R
Edna	Sep 11, 1954	5	80	SS1	45.8			La Nina	260 R/W
Diane	Aug 20, 1955	3	35	TS	19.9			La Nina	400 R
Daisy	Aug 29, 1958	4	90	SS2	30.4	982		Neutral	400 R
Not Named	Jun 20, 1959	3	70	SS1	12.7		E	Neutral	260 R/W
Cindy	Jul 11, 1959	4	50	TS	30.0			Neutral	260 R/W
Gracie	Oct 02, 1959	8	25	TD	30.3		E	Neutral	400 TD
Brenda	Jul 31, 1960	3	40	TS	33.8			Neutral	400 R
Cleo	Aug 20, 1960	4	80	SS1	22.2			Neutral	400 R
Donna	Sep 13, 1960	5	75	SS1	38.8			Neutral	400 R
Esther	Sep 26, 1961	5	35	TS	20.4			Neutral	400 R
Not Named	Sep 15, 1961	6	35	TS	51.4			Neutral	260 R/W
Frances	Oct 08, 1961	7	70	SS1	15.5			Neutral	260 R/W
Gerda	Oct 20, 1961	8	60	TS	16.4			Neutral	400 R
Daisy	Oct 07, 1962	4	70	SS1	15.6	975		Neutral	260 R/W
Ginny	Oct 29, 1963	8	95	SS2	29.1	958		El Nino	260 R/W
Dora	Sep 14, 1964	6	55	TS	28.5		E	La Nina	400 R
Gladys	Sep 24, 1964	9	65	SS1	30.9	982		La Nina	400 R
Celia	Jul 21, 1966	3	65	SS1	37.2	998		Neutral	400 R
Gladys	Oct 21, 1968	8	65	SS1	30.1			Neutral	400 R
Blanche	Aug 12, 1969	2	75	SS1	42.5			El Nino	400 R
Gerda	Sep 09, 1969	7	110	SS3	44.9	979		El Nino	260 R/W
Beth	Aug 15, 1971	3	75	SS1	14.4			La Nina	400 R

Name	Date	S#	MaxWind (kts)	SS Scale	AvgSysSpd (kts)	Pres (mb)	Comment	ENSO	R(km) R/W
Doria	Aug 28, 1971	5	45	TS	24.8			La Nina	400 R
Heidi	Sep 14, 1971	9	50	TS	19.5			La Nina	260 R/W
Carrie	Sep 04, 1972	4	55	TS	12.7	992	E	El Nino	260 R/W
Alfa	Aug 01, 1973	2	25	TD	13.3	1007	S	La Nina	260 TD
Dolly	Sep 05, 1974	7	40	TS	31.7			Neutral	400 R
Blanche	Jul 28, 1975	2	70	SS1	33.5	980		La Nina	260 R/W
David	Sep 07, 1979	4	50	TS	31.8	988	E	Neutral	260 R/W
Frederic	Sep 14, 1979	6	30	TD	78.7	998	E	Neutral	400 TD
Subtrop 3	Nov 17, 1981	12	50	TS	17.8	985	S	Neutral	400 R
Subtrop 1	Jun 20, 1982	2	60	TS	44.9	992	S	El Nino	400 R
Diana	Sep 15, 1984	5	60	TS	38.8	992		Neutral	400 R
Ana	Jul 18, 1985	1	55	TS	23.5	996		Neutral	400 R
Gloria	Sep 27, 1985	7	75	SS1	32.4	964		Neutral	400 R
Alberto	Aug 07, 1988	1	35	TS	24.6	1002		La Nina	260 R/W
Chris	Aug 30, 1988	3	25	TD	37.3	1008		La Nina	260 TD
Lili	Oct 14, 1990	12	50	TS	35.0	995		Neutral	400 R
Bob	Aug 19, 1991	2	85	SS2	24.7	964		El Nino	260 R/W
Unnamed	Nov 02, 1991	8	60	TS	24.7	988		El Nino	260 R/W
Allison	Jun 08, 1995	1	50	TS	21.6	982	E	Neutral	260 R/W
Barry	Jul 09, 1995	2	50	TS	22.1	995		Neutral	400 R
Bertha	Jul 14, 1996	2	60	TS	30.5	994		Neutral	260 R/W
Edouard	Sep 02, 1996	5	65	SS1	12.2	972		Neutral	400 R
Fran	Sep 09, 1996	6	15	TD	10.3	1008	E	Neutral	400 TD
Hortense	Sep 14, 1996	8	85	SS2	25.2	960		Neutral	260 R/W
Josephine	Oct 09, 1996	10	45	TS	29.9	980	E	Neutral	260 R/W
Floyd	Sep 17, 1999	6	45	TS	18.2	984	E	La Nina	260 R/W
Gordon	Sep 20, 2000	7	30	TD	16.7	1005	E	La Nina	400 TD

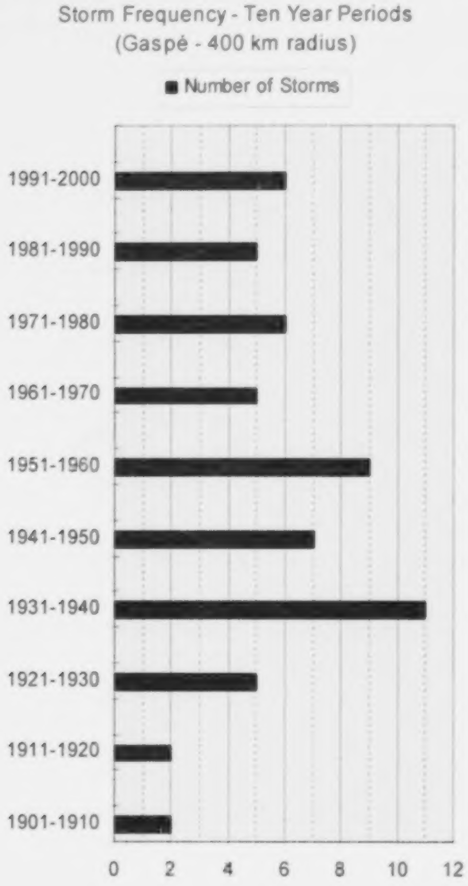
Québec

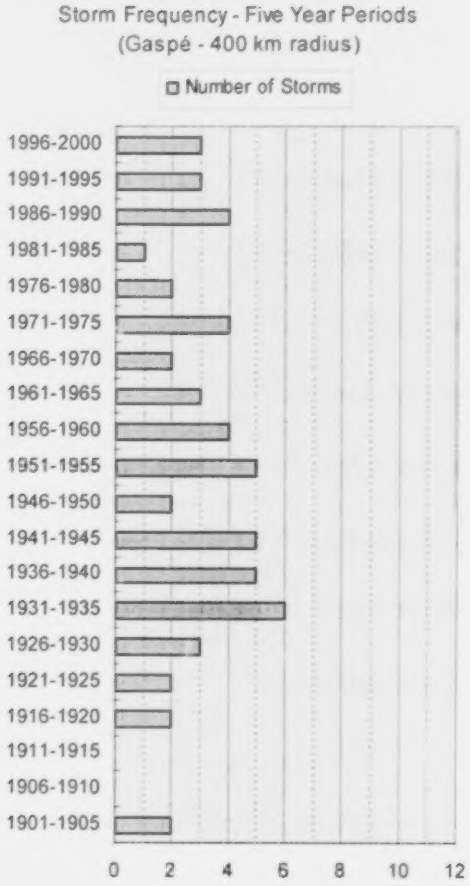
Gaspé

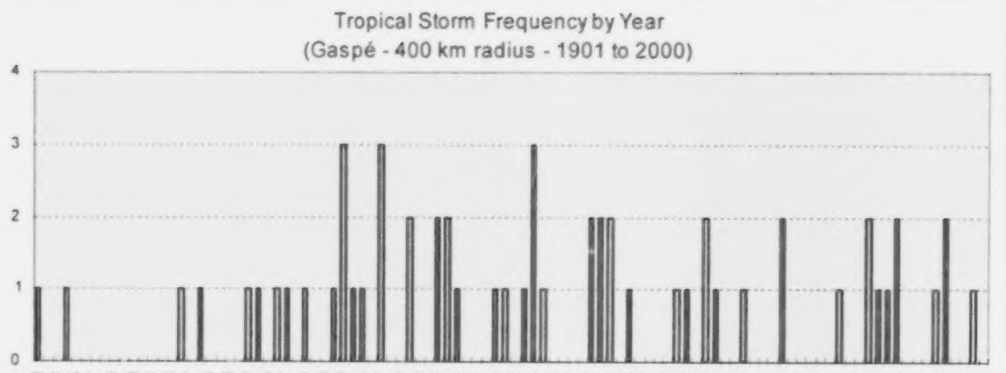




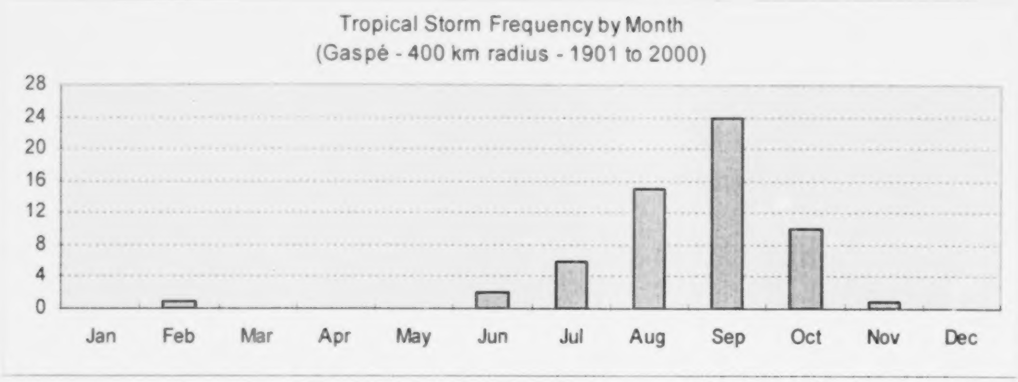
400 km Graphs - Frequency by Time-Periods (1901-2000)



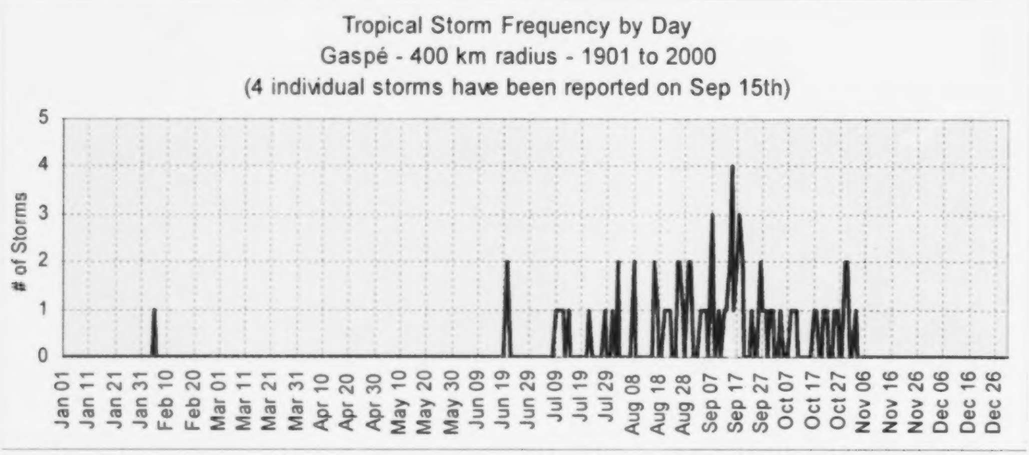




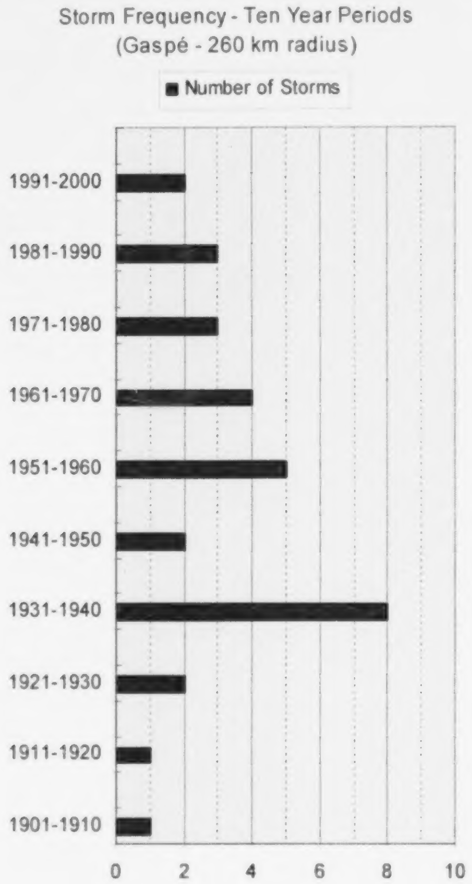
Note: Storms that span months were counted in both months

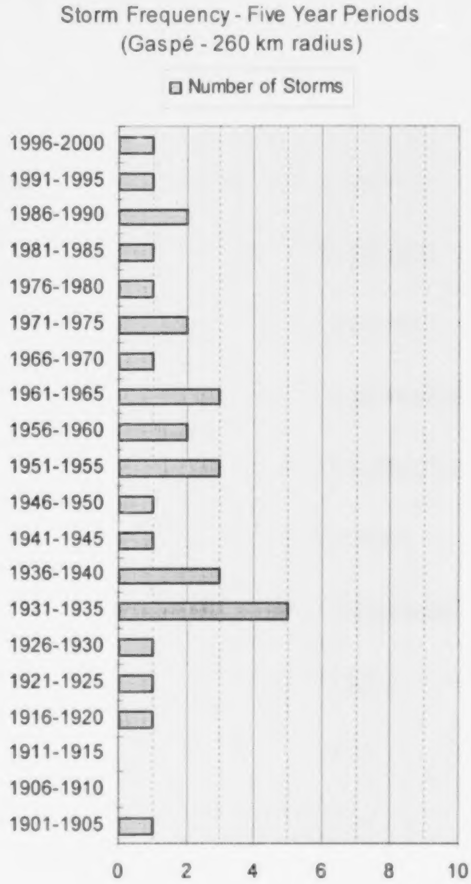

Tropical Storm Frequency by Month
(Gaspé - 400 km radius - 1901 to 2000)

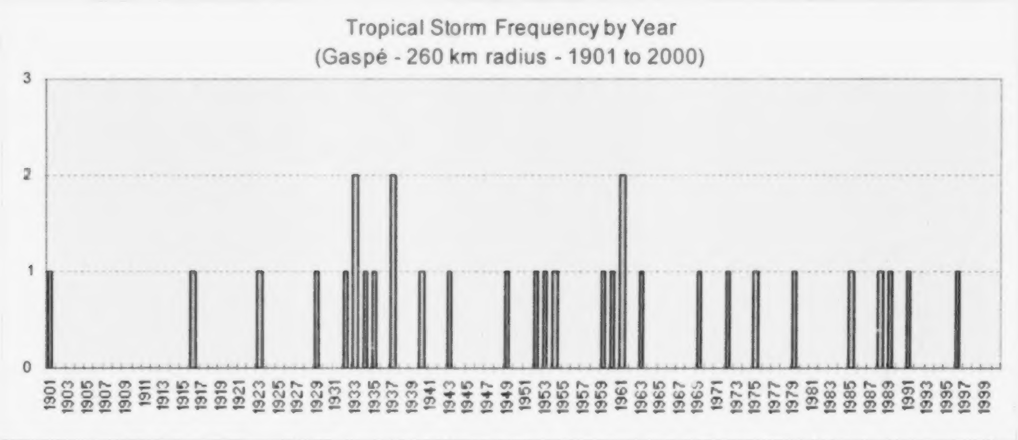
Note: Storms will generally span more than one day. The storm is counted in each day


Tropical Storm Frequency by Day
Gaspé - 400 km radius - 1901 to 2000
(4 individual storms have been reported on Sep 15th)

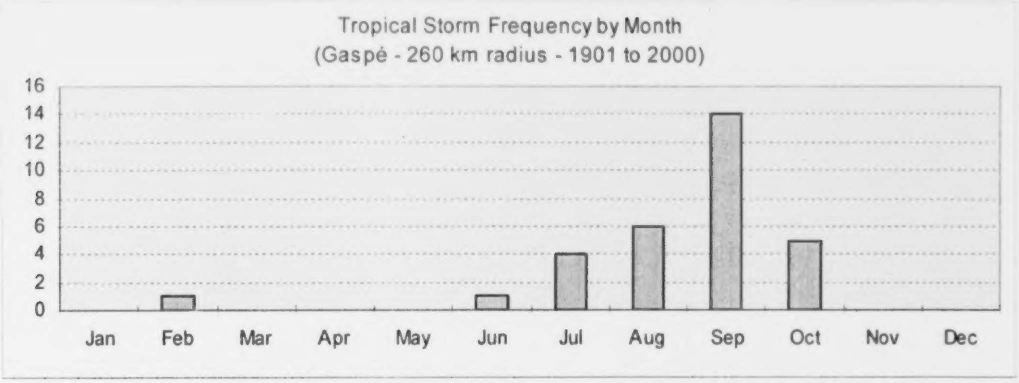
260 km Graphs - Frequency by Time-Periods (1901-2000)


Storm Frequency - Ten Year Periods
(Gaspé - 260 km radius)

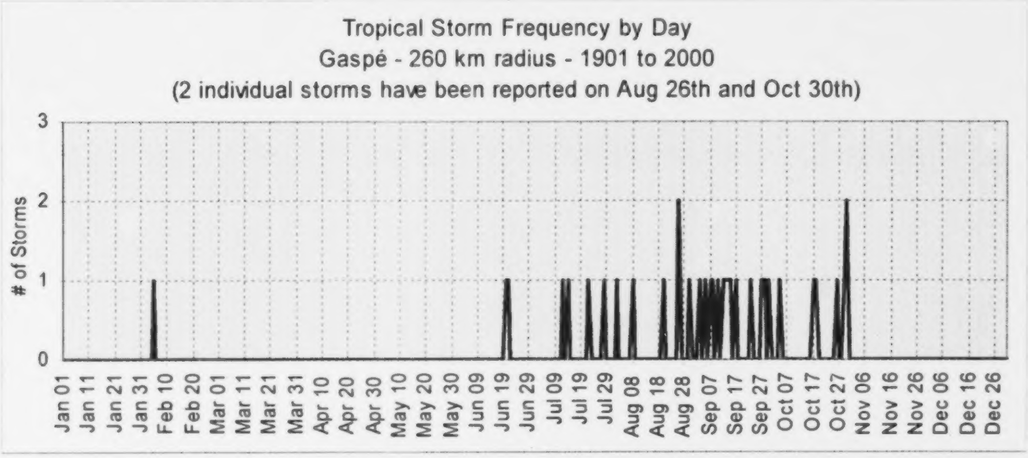

Storm Frequency - Five Year Periods
(Gaspé - 260 km radius)


Tropical Storm Frequency by Year
(Gaspé - 260 km radius - 1901 to 2000)

Note: Storms that span months were counted in both months


Tropical Storm Frequency by Month
(Gaspé - 260 km radius - 1901 to 2000)

Note: Storms will generally span more than one day. The storm is counted in each day


Tropical Storm Frequency by Day
Gaspé - 260 km radius - 1901 to 2000
(2 individual storms have been reported on Aug 26th and Oct 30th)

Gaspé – Summary Statistics 260 km Radius (gale swath)

100 Yr	**TD**	**TS**	**G**	**S**	**S1**	**S2**	**S3**	**S4**	**S5**	**H**	**<H**	**ALL**	**Sys-Spd**
#	5	23	14	9	1	2	0	0	0	3	28	31	29.3
Return	20	4.3	7.1	11.1	100	50	NA	NA	NA	33.3	3.6	3.2	
50 Yr	**TD**	**TS**	**G**	**S**	**S1**	**S2**	**S3**	**S4**	**S5**	**H**	**<H**	**ALL**	**Sys-Spd**
#	1	13	6	7	1	2	0	0	0	3	14	17	32.1
Return	50	3.8	8.3	7.1	50	25	NA	NA	NA	16.7	3.6	2.9	

Gaspé – Summary Statistics 400 km Radius (trace precipitation swath)

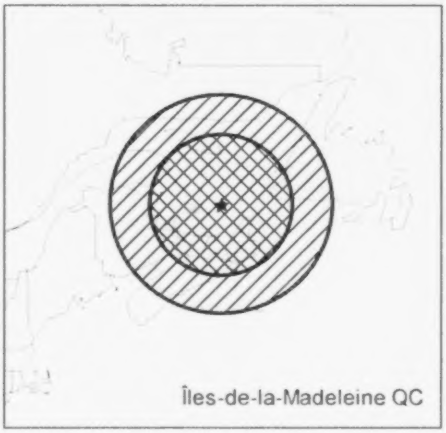
100 Yr	**TD**	**TS**	**G**	**S**	**S1**	**S2**	**S3**	**S4**	**S5**	**H**	**<H**	**ALL**	**Sys-Spd**
#	8	39	18	21	7	4	0	0	0	11	47	58	29.7
Return	12.5	2.6	5.6	4.8	14.3	25	NA	NA	NA	9.1	2.1	1.7	
50 Yr	**TD**	**TS**	**G**	**S**	**S1**	**S2**	**S3**	**S4**	**S5**	**H**	**<H**	**ALL**	**Sys-Spd**
#	3	22	8	14	4	2	0	0	0	6	25	31	31.5
Return	16.7	2.3	6.3	3.6	12.5	25	NA	NA	NA	8.3	2	1.6	

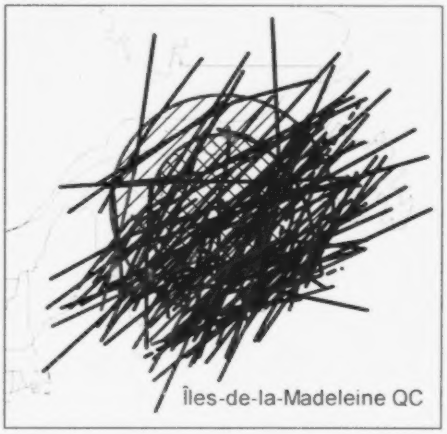
Gaspé – Storms That Tracked Within 400 km of Site (R) and within 260 km of the Site (R/W)

Name	**Date**	**S#**	**MaxWind (kts)**	**SS Scale**	**AvgSysSpd (kts)**	**Pres (mb)**	**Comment**	**ENSO**	**R(km) R/W**
Not Named	Sep 30, 1901	8	30	TD	28.2		E	Neutral	260 TD
Not Named	Sep 15, 1904	2	65	SS1	59.8		E	El Nino	400 R
Not Named	Jul 22, 1916	2	55	TS	36.4			La Nina	260 R/W
Not Named	Sep 07, 1918	4	45	TS	20.5		E	El Nino	400 R
Not Named	Oct 26, 1923	4	30	TD	22.0		E	Neutral	260 TD
Not Named	Aug 27, 1924	2	85	SS2	33.1		E	La Nina	400 R
Not Named	Aug 08, 1926	2	65	SS1	25.9		E	Neutral	400 R
Not Named	Aug 25, 1927	1	90	SS2	51.0		E	Neutral	400 R
Not Named	Oct 04, 1929	2	25	TD	36.5		E	El Nino	260 TD
Not Named	Sep 17, 1932	5	35	TS	25.0		E	Neutral	260 R/W
Not Named	Aug 26, 1933	8	20	TD	18.9			Neutral	260 TD
Not Named	Sep 18, 1933	13	60	TS	16.5		E	Neutral	400 R
Not Named	Oct 29, 1933	20	55	TS	11.6		E	Neutral	260 R/W
Not Named	Jun 20, 1934	2	40	TS	18.2		E	Neutral	260 R/W
Not Named	Aug 25, 1935	1	55	TS	7.2		E	Neutral	260 R/W
Not Named	Aug 02, 1937	1	40	TS	12.2			Neutral	260 R/W
Not Named	Sep 14, 1937	4	55	TS	26.5			Neutral	260 R/W
Not Named	Sep 26, 1937	7	75	SS1	30.3		E	Neutral	400 R
Not Named	Sep 03, 1940	4	55	TS	24.3			El Nino	260 R/W
Not Named	Sep 17, 1940	5	55	TS	15.1			El Nino	400 R
Not Named	Sep 16, 1943	5	35	TS	24.0		E	Neutral	400 R
Not Named	Oct 17, 1943	9	35	TS	34.2		E	Neutral	260 R/W
Not Named	Sep 15, 1944	7	35	TS	40.1		E	La Nina	400 R
Not Named	Oct 22, 1944	11	45	TS	31.2		E	La Nina	400 R
Not Named	Sep 19, 1945	9	25	TD	34.8		E	Neutral	400 TD
Not Named	Aug 29, 1949	2	35	TS	34.8		E	La Nina	260 R/W
Able	Aug 21, 1950	1	35	TS	25.3			Neutral	400 R
Not Named	Feb 05, 1952	1	45	TS	30.5		E	Neutral	260 R/W
Barbara	Aug 16, 1953	2	55	TS	41.7		E	Neutral	400 R
Carol	Sep 07, 1953	4	65	SS1	31.9			Neutral	260 R/W
Not Named	Oct 08, 1953	10	60	TS	25.3		E	Neutral	400 R
Edna	Sep 12, 1954	5	65	SS1	44.8		E	La Nina	260 R/W
Not Named	Jun 20, 1959	3	60	TS	11.5		E	Neutral	400 R
Cindy	Jul 11, 1959	4	50	TS	29.7		E	Neutral	260 R/W
Brenda	Jul 31, 1960	3	35	TS	35.7		E	Neutral	400 R
Donna	Sep 13, 1960	5	60	TS	38.5		E	Neutral	260 R/W
Esther	Sep 26, 1961	5	30	TD	18.5			Neutral	260 TD
Not Named	Sep 15, 1961	6	35	TS	60.6			Neutral	260 R/W
Ginny	Oct 29, 1963	8	90	SS2	27.1		E	El Nino	260 R/W
Gladys	Oct 21, 1968	8	65	SS1	25.0	975	E	Neutral	400 R
Gerda	Sep 10, 1969	7	95	SS2	45.8	979		El Nino	260 R/W
Beth	Aug 16, 1971	3	65	SS1	17.3			La Nina	400 R
Doria	Aug 29, 1971	5	35	TS	24.2		E	La Nina	400 R
Carrie	Sep 04, 1972	4	50	TS	10.0		E	El Nino	260 R/W
Blanche	Jul 28, 1975	2	60	TS	37.5	988	E	La Nina	260 R/W

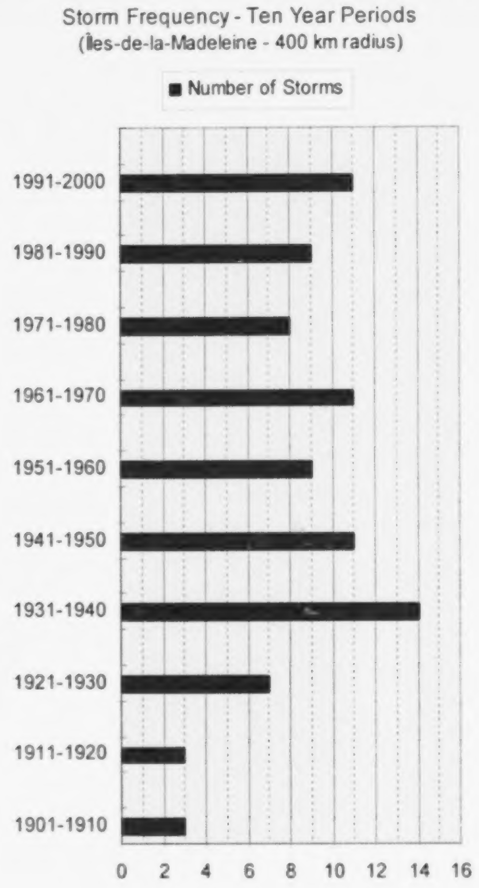
Name	Date	S#	MaxWind (kts)	SS Scale	AvgSysSpd (kts)	Pres (mb)	Comment	ENSO	R(km) R/W
David	Sep 07, 1979	4	50	TS	34.3	988	E	Neutral	260 R/W
Frederic	Sep 14, 1979	6	30	TD	78.7	998	E	Neutral	400 TD
Gloria	Sep 28, 1985	7	50	TS	26.3	986	E	Neutral	260 R/W
Alberto	Aug 08, 1988	1	35	TS	29.2	1004		La Nina	260 R/W
Chris	Aug 30, 1988	3	25	TD	38.0	1008		La Nina	400 TD
Hugo	Sep 23, 1989	8	40	TS	33.9	990	E	Neutral	260 R/W
Bertha	Aug 02, 1990	2	60	TS	24.0	978	E	Neutral	400 R
Bob	Aug 20, 1991	2	50	TS	25.2	987		El Nino	260 R/W
Unnamed	Nov 02, 1991	8	50	TS	24.1	996		El Nino	400 R
Barry	Jul 09, 1995	2	50	TS	22.7	991		Neutral	400 R
Bertha	Jul 14, 1996	2	55	TS	31.0	995		Neutral	260 R/W
Josephine	Oct 09, 1996	10	45	TS	32.7	984	E	Neutral	400 R
Floyd	Sep 18, 1999	6	40	TS	20.9	987	E	La Nina	400 R

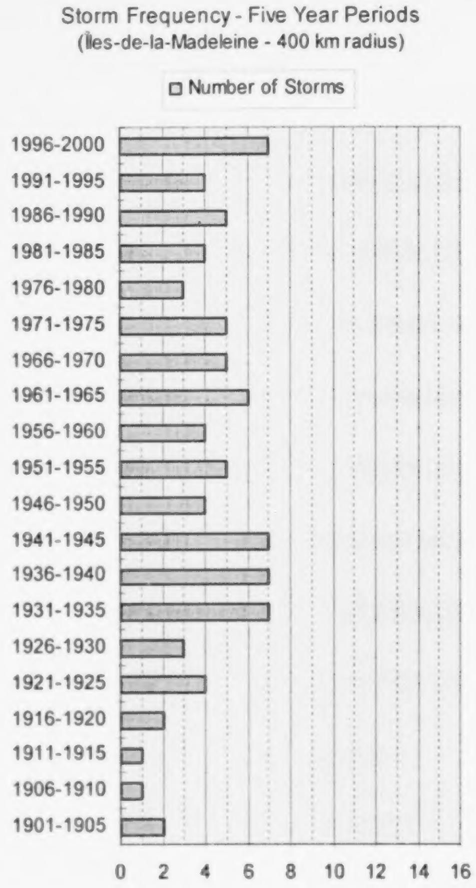
Îles-de-la-Madeleine

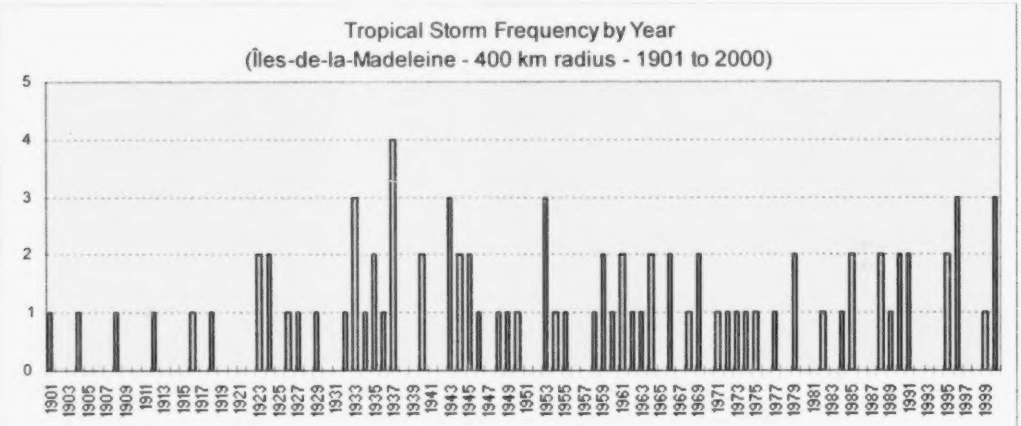




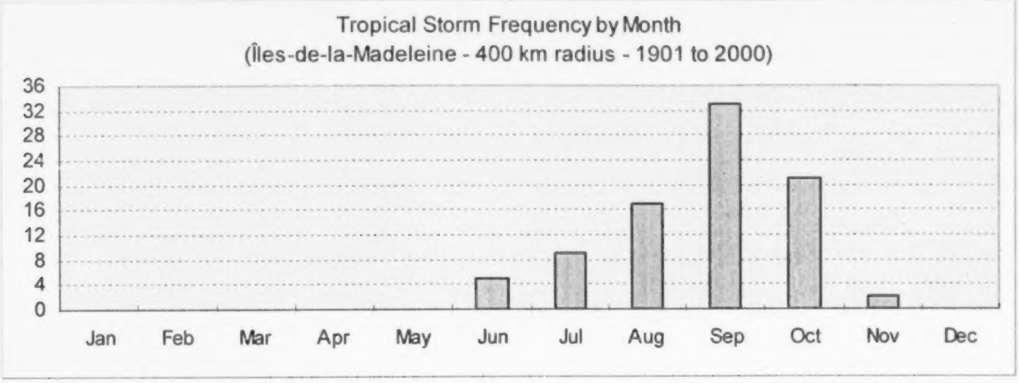
400 km Graphs - Frequency by Time-Periods (1901-2000)



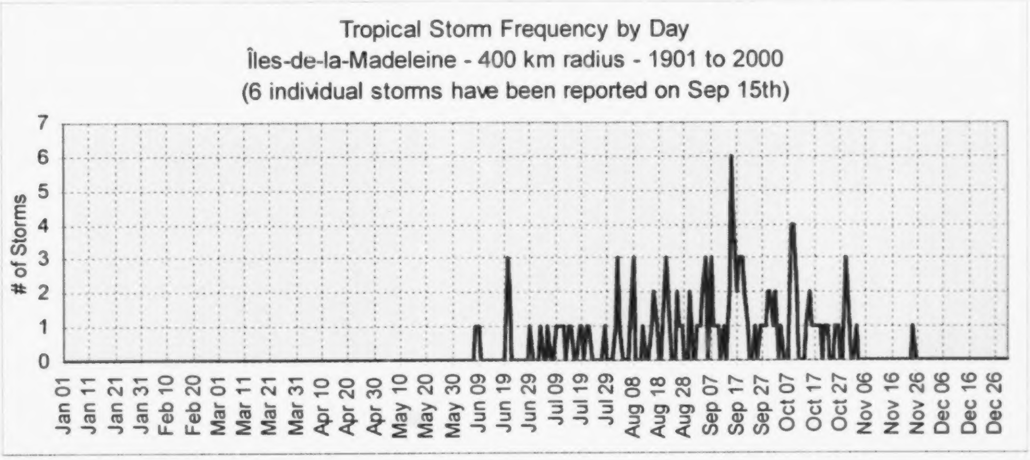




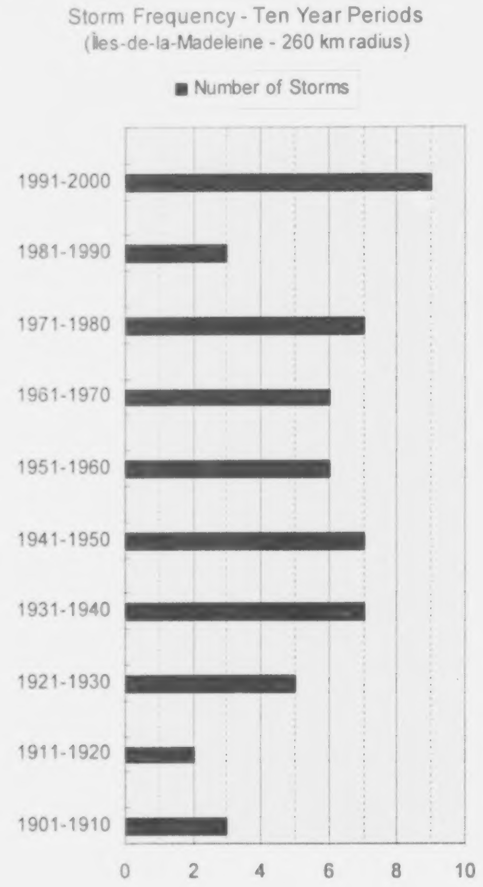
Note: Storms that span months were counted in both months

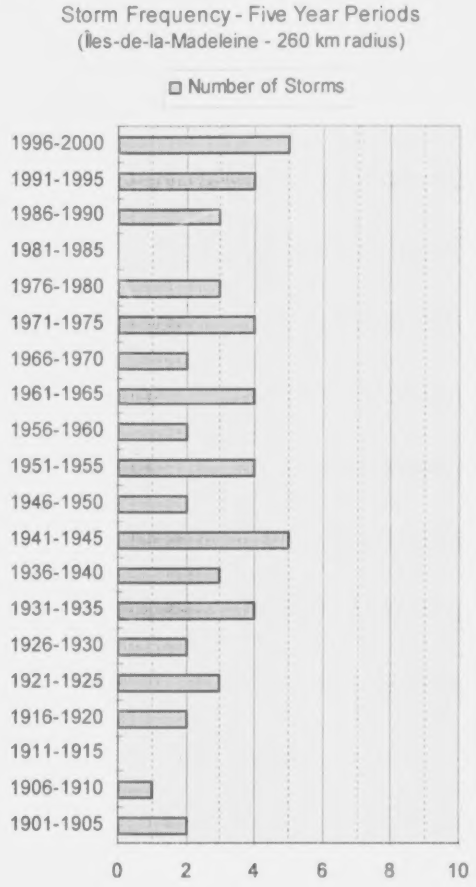


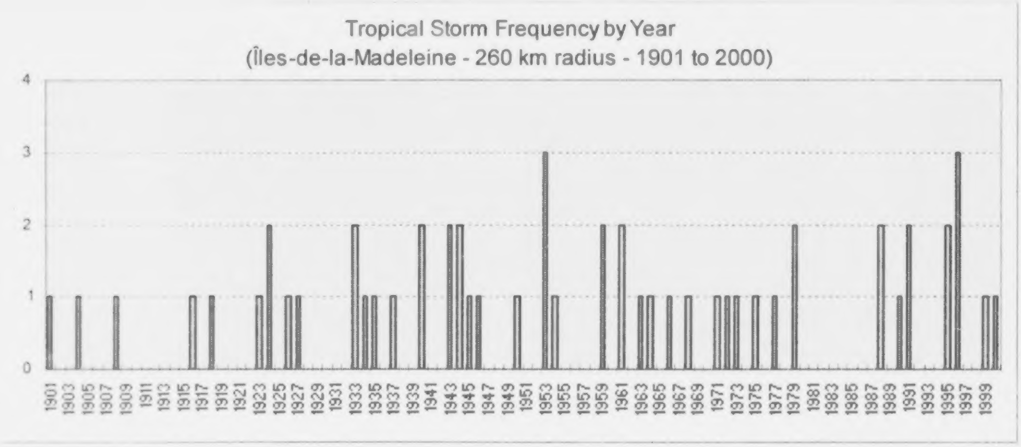
Note: Storms will generally span more than one day. The storm is counted in each day



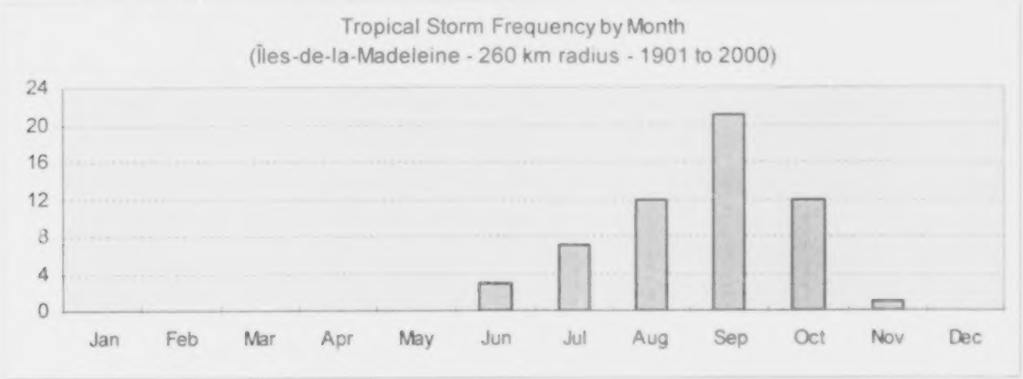
260 km Graphs - Frequency by Time-Periods (1901-2000)



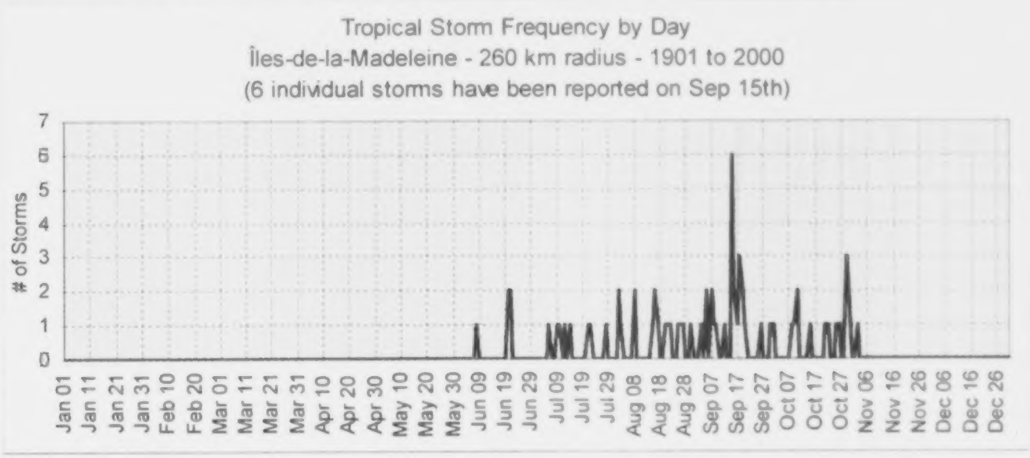




Note: Storms that span months were counted in both months



Note: Storms will generally span more than one day. The storm is counted in each day



Îles-de-la-Madeleine – Summary Statistics 260 km Radius (gale swath)

100 Yr	TD	TS	G	S	S1	S2	S3	S4	S5	H	<H	ALL	Sys-Spd
#	4	34	16	18	14	3	0	0	0	17	38	55	28.8
Return	25	2.9	6.3	5.6	7.1	33.3	NA	NA	NA	5.9	2.6	1.8	
50 Yr	**TD**	**TS**	**G**	**S**	**S1**	**S2**	**S3**	**S4**	**S5**	**H**	**<H**	**ALL**	**Sys-Spd**
#	1	20	8	12	9	1	0	0	0	10	21	31	29.3
Return	50	2.5	6.3	4.2	5.6	50	NA	NA	NA	5	2.4	1.6	

Îles-de-la-Madeleine – Summary Statistics 400 km Radius (trace precipitation swath)

100 Yr	**TD**	**TS**	**G**	**S**	**S1**	**S2**	**S3**	**S4**	**S5**	**H**	**<H**	**ALL**	**Sys-Spd**
#	5	49	21	28	25	7	0	0	0	32	54	86	29.5
Return	20	2	4.8	3.6	4	14.3	NA	NA	NA	3.1	1.9	1.2	
50 Yr	**TD**	**TS**	**G**	**S**	**S1**	**S2**	**S3**	**S4**	**S5**	**H**	**<H**	**ALL**	**Sys-Spd**
#	1	29	10	19	15	3	0	0	0	18	30	48	30.2
Return	50	1.7	5	2.6	3.3	16.7	NA	NA	NA	2.8	1.7	1	

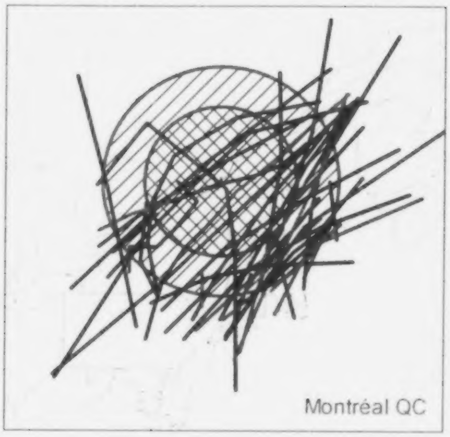
Îles-de-la-Madeleine – Storms That Tracked Within 400 km of Site (R) and within 260 km of the Site (R/W)

Name	Date	S#	MaxWind (kts)	SS Scale	AvgSysSpd (kts)	Pres (mb)	Comment	ENSO	R(km) R/W
Not Named	Sep 30, 1901	8	30	TD	25.6		E	Neutral	260 TD
Not Named	Sep 15, 1904	2	65	SS1	59.8		E	El Nino	260 R/W
Not Named	Aug 02, 1908	2	85	SS2	22.0			La Nina	260 R/W
Not Named	Nov 24, 1912	6	60	TS	40.5		E	Neutral	400 R
Not Named	Jul 22, 1916	2	55	TS	36.4			La Nina	260 R/W
Not Named	Sep 07, 1918	4	50	TS	19.1		E	El Nino	260 R/W
Not Named	Oct 02, 1923	2	75	SS1	17.1		E	Neutral	400 R
Not Named	Oct 26, 1923	4	30	TD	21.3		E	Neutral	260 TD
Not Named	Aug 27, 1924	2	85	SS2	33.1		E	La Nina	260 R/W
Not Named	Sep 04, 1924	3	70	SS1	26.4		E	La Nina	260 R/W
Not Named	Aug 08, 1926	2	70	SS1	25.8		E	Neutral	260 R/W
Not Named	Aug 25, 1927	1	90	SS2	51.0		E	Neutral	260 R/W
Not Named	Oct 04, 1929	2	25	TD	62.0		E	El Nino	400 TD
Not Named	Sep 17, 1932	5	35	TS	25.0		E	Neutral	400 R
Not Named	Sep 18, 1933	13	60	TS	17.4		E	Neutral	260 R/W
Not Named	Oct 08, 1933	18	85	SS2	18.3		E	Neutral	400 R
Not Named	Oct 29, 1933	20	60	TS	12.8		E	Neutral	260 R/W
Not Named	Jun 20, 1934	2	40	TS	18.2		E	Neutral	260 R/W
Not Named	Aug 25, 1935	1	70	SS1	10.4		E	Neutral	260 R/W
Not Named	Oct 02, 1935	4	65	SS1	36.8		E	Neutral	400 R
Not Named	Sep 19, 1936	13	75	SS1	32.4			Neutral	400 R
Not Named	Aug 02, 1937	1	40	TS	12.2			Neutral	400 R
Not Named	Sep 14, 1937	4	55	TS	26.5			Neutral	400 R
Not Named	Sep 26, 1937	7	75	SS1	27.6		E	Neutral	260 R/W
Not Named	Sep 29, 1937	8	35	TS	27.1		E	Neutral	400 R
Not Named	Sep 03, 1940	4	55	TS	24.3			El Nino	260 R/W
Not Named	Sep 17, 1940	5	65	SS1	16.4			El Nino	260 R/W
Not Named	Sep 09, 1943	4	70	SS1	30.5			Neutral	260 R/W
Not Named	Sep 16, 1943	5	40	TS	25.0		E	Neutral	260 R/W
Not Named	Oct 17, 1943	9	35	TS	34.2		E	Neutral	400 R
Not Named	Sep 15, 1944	7	35	TS	40.8		E	La Nina	260 R/W
Not Named	Oct 22, 1944	11	45	TS	31.9		E	La Nina	260 R/W
Not Named	Jun 29, 1945	1	40	TS	23.7		E	Neutral	400 R
Not Named	Sep 19, 1945	9	25	TD	35.1		E	Neutral	260 TD
Not Named	Sep 15, 1946	4	60	TS	31.0		E	Neutral	260 R/W
Not Named	Sep 02, 1948	3	50	TS	40.8		E	Neutral	400 R
Not Named	Aug 30, 1949	2	35	TS	29.5		E	La Nina	400 R
Able	Aug 21, 1950	1	35	TS	25.3			Neutral	260 R/W
Barbara	Aug 15, 1953	2	70	SS1	39.5		E	Neutral	260 R/W
Carol	Sep 07, 1953	4	65	SS1	31.9			Neutral	260 R/W
Not Named	Oct 08, 1953	10	60	TS	22.9		E	Neutral	260 R/W
Edna	Sep 12, 1954	5	65	SS1	44.8		E	La Nina	260 R/W
Ione	Sep 21, 1955	9	60	TS	25.8		E	La Nina	400 R
Helene	Sep 29, 1958	8	70	SS1	41.0	963		Neutral	400 R
Not Named	Jun 20, 1959	3	70	SS1	16.6		E	Neutral	260 R/W

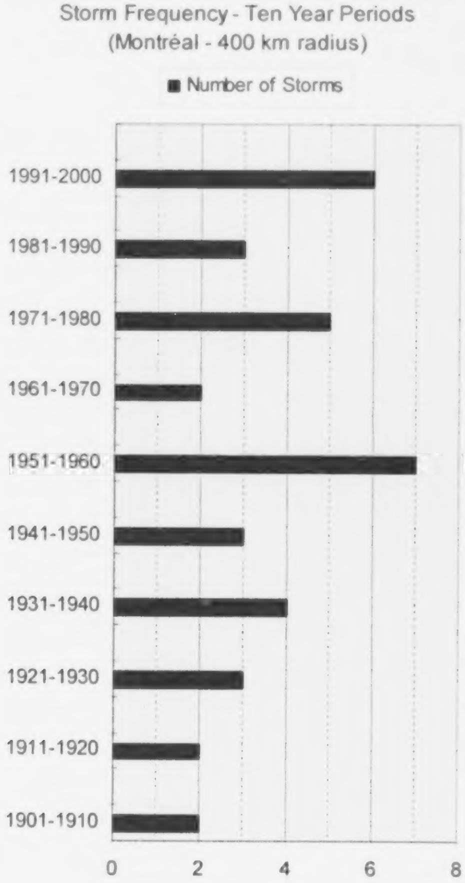
Name	Date	S#	MaxWind (kts)	SS Scale	AvgSysSpd (kts)	Pres (mb)	Comment	ENSO	R(km) R/W
Cindy	Jul 11, 1959	4	50	TS	29.4		E	Neutral	260 R/W
Cleo	Aug 20, 1960	4	55	TS	19.9			Neutral	400 R
Not Named	Sep 15, 1961	6	35	TS	60.6			Neutral	260 R/W
Frances	Oct 09, 1961	7	40	TS	24.6		E	Neutral	260 R/W
Daisy	Oct 08, 1962	4	65	SS1	18.2			Neutral	400 R
Ginny	Oct 29, 1963	8	90	SS2	27.1		E	El Nino	260 R/W
Dora	Sep 15, 1964	6	55	TS	26.1		E	La Nina	260 R/W
Gladys	Sep 24, 1964	9	65	SS1	40.4	973		La Nina	400 R
Becky	Jul 03, 1966	2	45	TS	14.4		E	Neutral	400 R
Celia	Jul 21, 1966	3	65	SS1	37.6	998		Neutral	260 R/W
Gladys	Oct 21, 1968	8	65	SS1	30.1			Neutral	260 R/W
Blanche	Aug 12, 1969	2	75	SS1	42.5			El Nino	400 R
Gerda	Sep 10, 1969	7	95	SS2	45.8	979		El Nino	400 R
Beth	Aug 16, 1971	3	65	SS1	14.8	979		La Nina	260 R/W
Carrie	Sep 04, 1972	4	45	TS	9.5		E	El Nino	260 R/W
Alice	Jul 06, 1973	1	60	TS	33.8			La Nina	260 R/W
Dolly	Sep 05, 1974	7	40	TS	28.1			Neutral	400 R
Blanche	Jul 28, 1975	2	60	TS	37.5	988	E	La Nina	260 R/W
Evelyn	Oct 15, 1977	5	70	SS1	23.5	996		Neutral	260 R/W
David	Sep 07, 1979	4	50	TS	34.3	988	E	Neutral	260 R/W
Subtrop 1	Oct 25, 1979	9	60	TS	42.8	980	S	Neutral	260 R/W
Subtrop 1	Jun 20, 1982	2	60	TS	37.2	988	S	El Nino	400 R
Diana	Sep 16, 1984	5	60	TS	38.4	994		Neutral	400 R
Ana	Jul 19, 1985	1	60	TS	28.0	996		Neutral	400 R
Gloria	Sep 28, 1985	7	50	TS	25.0	987	E	Neutral	400 R
Alberto	Aug 07, 1988	1	35	TS	28.0	1002		La Nina	260 R/W
Chris	Aug 30, 1988	3	25	TD	38.1	1008		La Nina	260 TD
Dean	Aug 08, 1989	4	65	SS1	32.9	978		Neutral	400 R
Bertha	Aug 02, 1990	2	70	SS1	20.6	973		Neutral	260 R/W
Lili	Oct 14, 1990	12	45	TS	37.3	995		Neutral	400 R
Bob	Aug 20, 1991	2	50	TS	25.0	987		El Nino	260 R/W
Unnamed	Nov 02, 1991	8	50	TS	24.1	996		El Nino	260 R/W
Allison	Jun 08, 1995	1	50	TS	23.1	989	E	Neutral	260 R/W
Barry	Jul 09, 1995	2	50	TS	22.6	993		Neutral	260 R/W
Bertha	Jul 14, 1996	2	55	TS	31.9	995		Neutral	260 R/W
Hortense	Sep 14, 1996	8	75	SS1	22.9	960		Neutral	260 R/W
Josephine	Oct 09, 1996	10	45	TS	29.2	984	E	Neutral	260 R/W
Floyd	Sep 18, 1999	6	40	TS	20.8	987	E	La Nina	260 R/W
Leslie	Oct 08, 2000	12	40	TS	36.6	1003	E	La Nina	400 R
Michael	Oct 19, 2000	13	85	SS2	42.4	965		La Nina	400 R
Subtrop	Oct 29, 2000	15	50	TS	20.3	980	E	La Nina	260 R/W

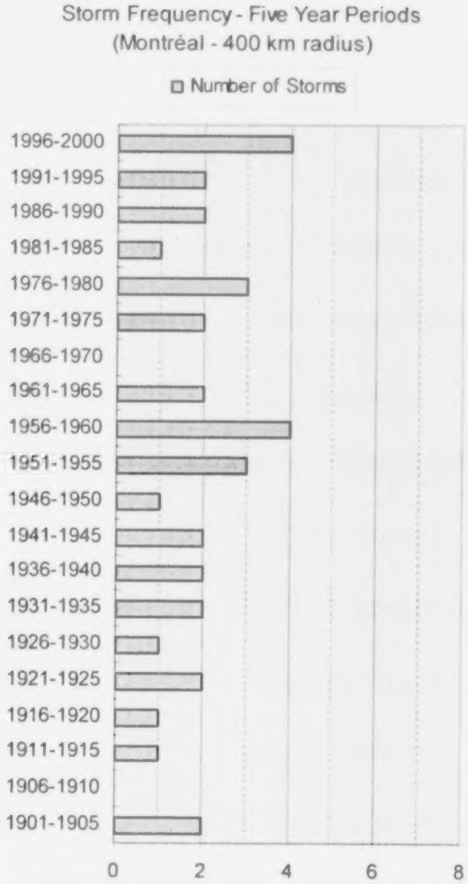
Montréal

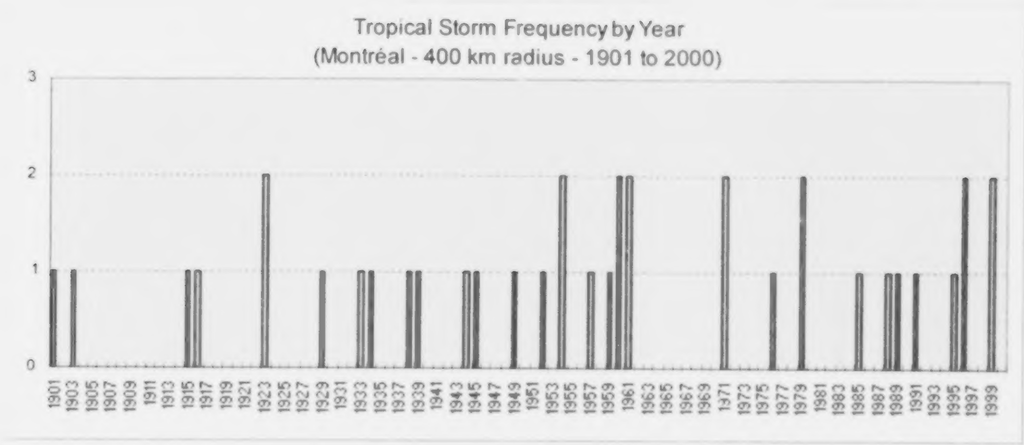
Montréal QC



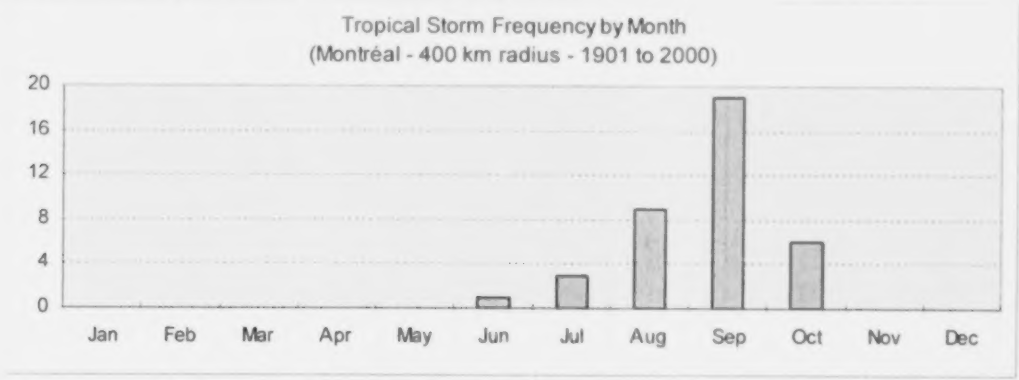
400 km Graphs - Frequency by Time-Periods (1901-2000)



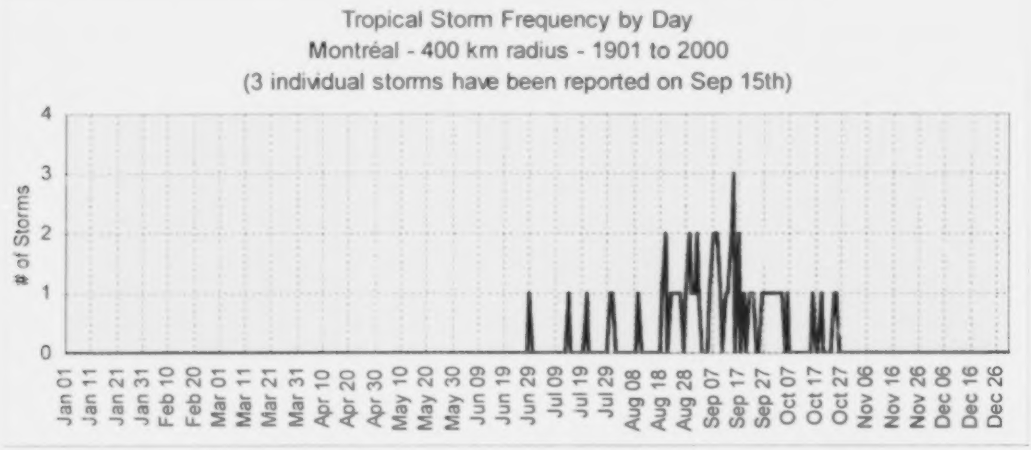




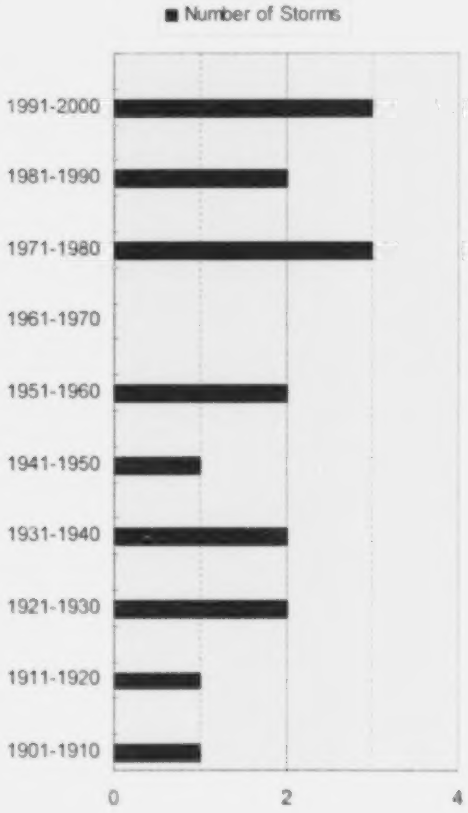
Note: Storms that span months were counted in both months

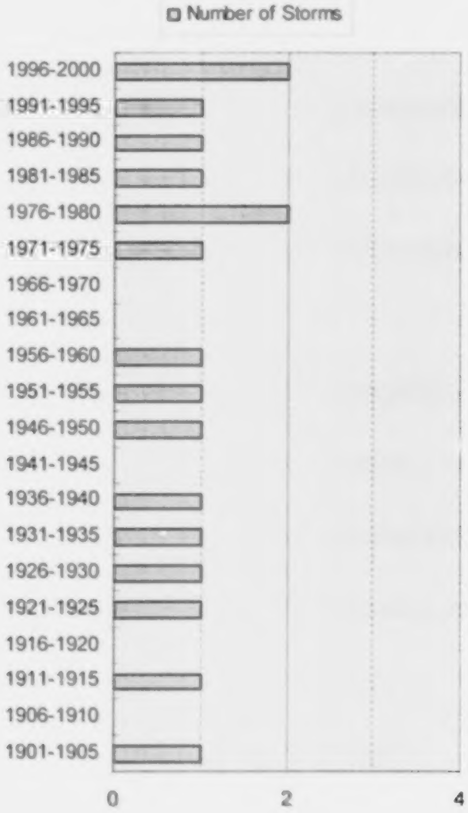


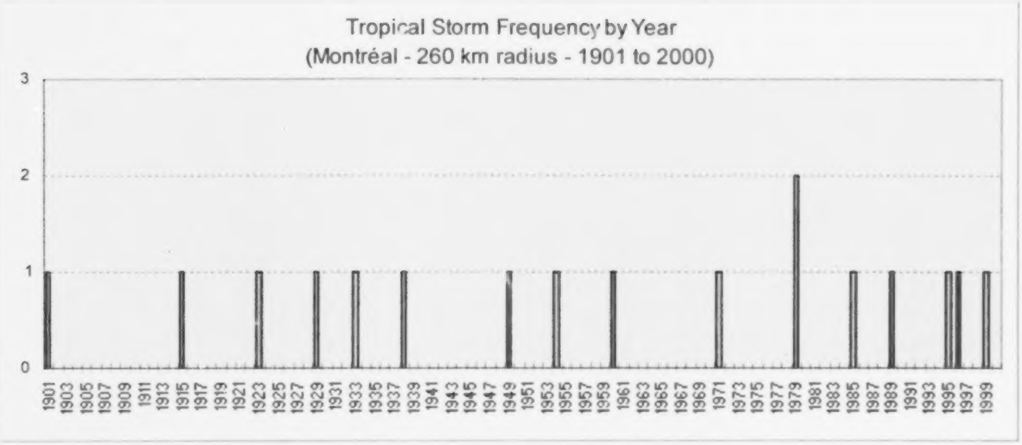
Note: Storms will generally span more than one day. The storm is counted in each day


Tropical Storm Frequency by Day
Montréal - 400 km radius - 1901 to 2000
(3 individual storms have been reported on Sep 15th)

260 km Graphs - Frequency by Time-Periods (1901-2000)

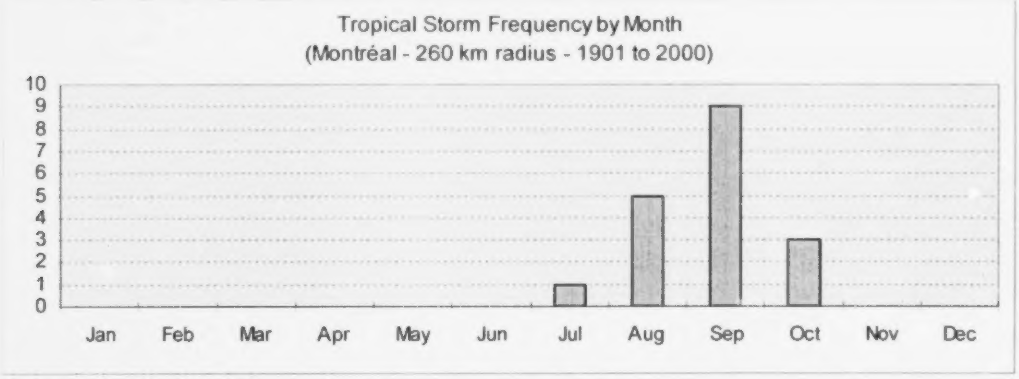

Storm Frequency - Ten Year Periods
(Montréal - 260 km radius)


Storm Frequency - Five Year Periods
(Montréal - 260 km radius)



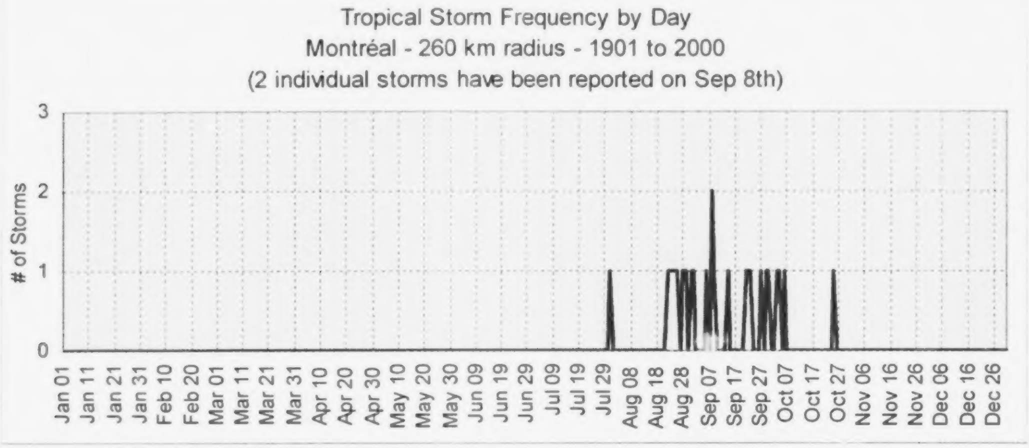
Tropical Storm Frequency by Year
(Montréal - 260 km radius - 1901 to 2000)

Note: Storms that span months were counted in both months



Tropical Storm Frequency by Month
(Montréal - 260 km radius - 1901 to 2000)

Note: Storms will generally span more than one day. The storm is counted in each day


Tropical Storm Frequency by Day
Montréal - 260 km radius - 1901 to 2000
(2 individual storms have been reported on Sep 8th)

Montréal – Summary Statistics 260 km Radius (gale swath)

100 Yr	**TD**	**TS**	**G**	**S**	**S1**	**S2**	**S3**	**S4**	**S5**	**H**	**<H**	**ALL**	**Sys-Spd**
#	6	8	8	0	2	1	0	0	0	3	14	17	28.7
Return	16.7	12.5	12.5	NA	50	100	NA	NA	NA	33.3	7.1	5.9	
50 Yr	**TD**	**TS**	**G**	**S**	**S1**	**S2**	**S3**	**S4**	**S5**	**H**	**<H**	**ALL**	**Sys-Spd**
#	3	5	5	0	2	0	0	0	0	2	8	10	32.9
Return	16.7	10	10	NA	25	NA	NA	NA	NA	25	6.3	5	

Montréal – Summary Statistics 400 km Radius (trace precipitation swath)

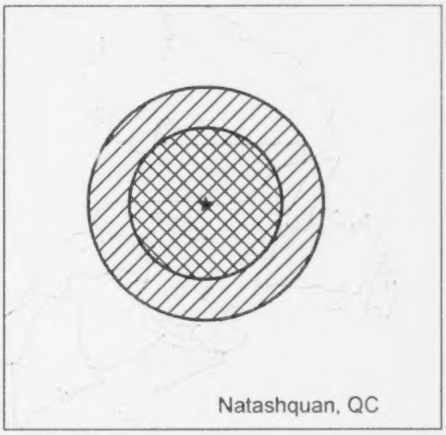
100 Yr	**TD**	**TS**	**G**	**S**	**S1**	**S2**	**S3**	**S4**	**S5**	**H**	**<H**	**ALL**	**Sys-Spd**
#	10	19	15	4	4	4	0	0	0	8	29	37	26.6
Return	10	5.3	6.7	25	25	25	NA	NA	NA	12.5	3.4	2.7	
50 Yr	**TD**	**TS**	**G**	**S**	**S1**	**S2**	**S3**	**S4**	**S5**	**H**	**<H**	**ALL**	**Sys-Spd**
#	5	13	9	4	2	3	0	0	0	5	18	23	29.8
Return	10	3.8	5.6	12.5	25	16.7	NA	NA	NA	10	2.8	2.2	

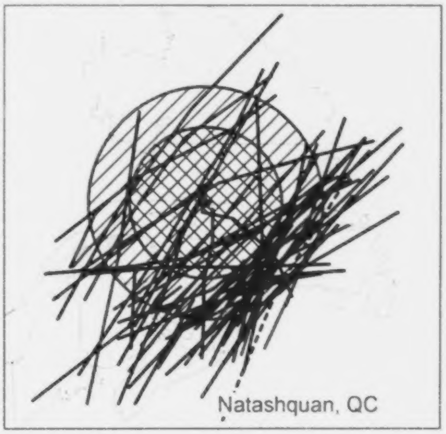
Montréal – Storms That Tracked Within 400 km of Site (R) and within 260 km of the Site (R/W)

Name	**Date**	**S#**	**MaxWind (kts)**	**SS Scale**	**AvgSysSpd (kts)**	**Pres (mb)**	**Comment**	**ENSO**	**R(km) R/W**
Not Named	Sep 29, 1901	8	25	TD	24.6		E	Neutral	260 TD
Not Named	Sep 17, 1903	4	45	TS	15.3			La Nina	400 R
Not Named	Aug 22, 1915	2	25	TD	15.0		E	Neutral	260 TD
Not Named	Jul 21, 1916	2	65	SS1	24.2			La Nina	400 R
Not Named	Oct 24, 1923	4	35	TS	17.9		E	Neutral	260 R/W
Not Named	Oct 19, 1923	5	40	TS	12.4			Neutral	400 R
Not Named	Oct 03, 1929	2	30	TD	14.6		E	El Nino	260 TD
Not Named	Aug 24, 1933	8	45	TS	11.1			Neutral	260 R/W
Not Named	Sep 09, 1934	6	45	TS	19.1		E	Neutral	400 R
Not Named	Sep 21, 1938	4	85	SS2	29.6	940	E	La Nina	260 R/W
Not Named	Aug 20, 1939	2	25	TD	10.0			Neutral	400 TD
Not Named	Sep 15, 1944	7	65	SS1	30.3	966		La Nina	400 R
Not Named	Sep 19, 1945	9	25	TD	28.6		E	Neutral	400 TD
Not Named	Aug 29, 1949	2	35	TS	44.3	1000		La Nina	260 R/W

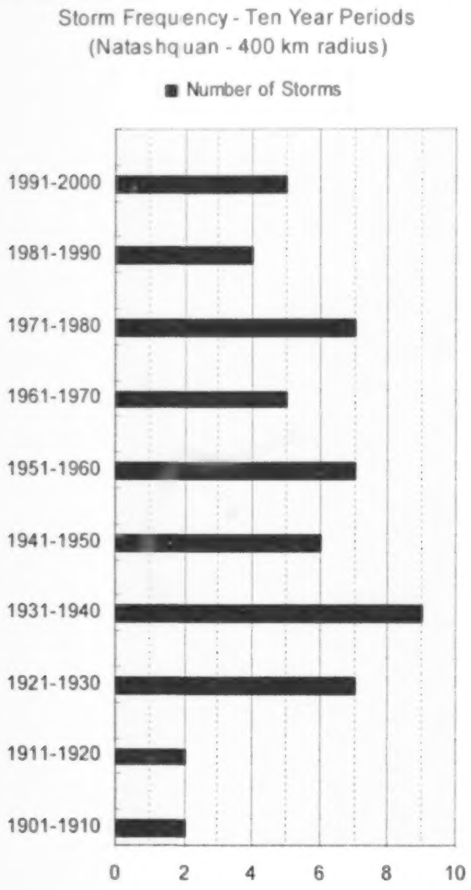
Name	Date	S#	MaxWind (kts)	SS Scale	AvgSysSpd (kts)	Pres (mb)	Comment	ENSO	R(km) R/W
Able	Sep 01, 1952	2	30	TD	13.3			Neutral	400 TD
Carol	Aug 31, 1954	3	85	SS2	29.5			La Nina	260 R/W
Hazel	Oct 16, 1954	9	70	SS1	40.1		E	La Nina	400 R
Audrey	Jun 29, 1957	2	50	TS	51.6		E	El Nino	400 R
Gracie	Oct 01, 1959	8	30	TD	22.1		E	Neutral	400 TD
Brenda	Jul 30, 1960	3	45	TS	31.5			Neutral	260 R/W
Donna	Sep 12, 1960	5	90	SS2	37.3			Neutral	400 R
Esther	Sep 26, 1961	5	35	TS	20.6			Neutral	400 R
Not Named	Sep 15, 1961	6	35	TS	51.4			Neutral	400 R
Doria	Aug 28, 1971	5	45	TS	26.4	997		La Nina	260 R/W
Heidi	Sep 14, 1971	9	40	TS	18.1	998		La Nina	400 R
Belle	Aug 10, 1976	3	60	TS	17.1	983		El Nino	400 R
David	Sep 07, 1979	4	45	TS	29.8	991	E	Neutral	260 R/W
Frederic	Sep 14, 1979	6	35	TS	63.4	997		Neutral	260 TD
Gloria	Sep 27, 1985	7	75	SS1	35.7	964		Neutral	260 R/W
Chris	Aug 30, 1988	3	20	TD	37.0	1008		La Nina	400 TD
Hugo	Sep 23, 1989	8	40	TS	51.8	990	E	Neutral	260 R/W
Bob	Aug 19, 1991	2	85	SS2	25.2	964		El Nino	400 R
Opal	Oct 06, 1995	15	35	TS	18.2	997	E	Neutral	260 R/W
Bertha	Jul 14, 1996	2	60	TS	29.1	994		Neutral	400 R
Fran	Sep 08, 1996	6	25	TD	11.6	1000		Neutral	260 TD
Dennis	Sep 07, 1999	4	20	TD	8.7	1007		La Nina	260 TD
Floyd	Sep 17, 1999	6	50	TS	16.6	980		La Nina	400 R

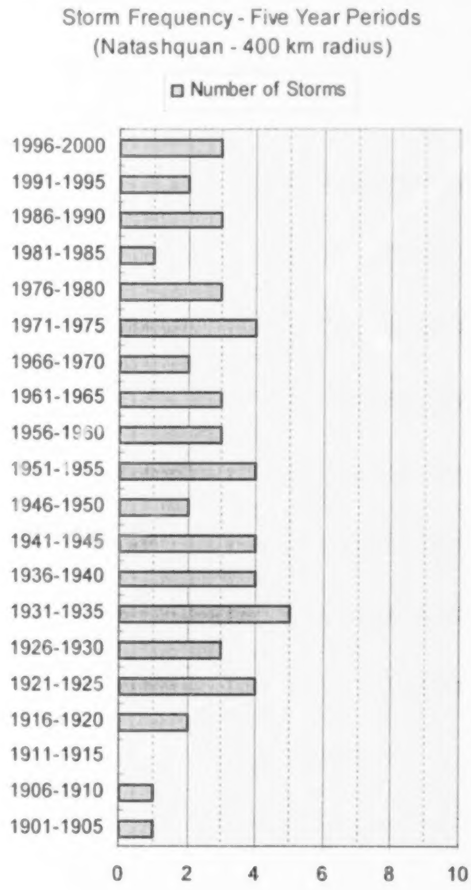
Natashquan

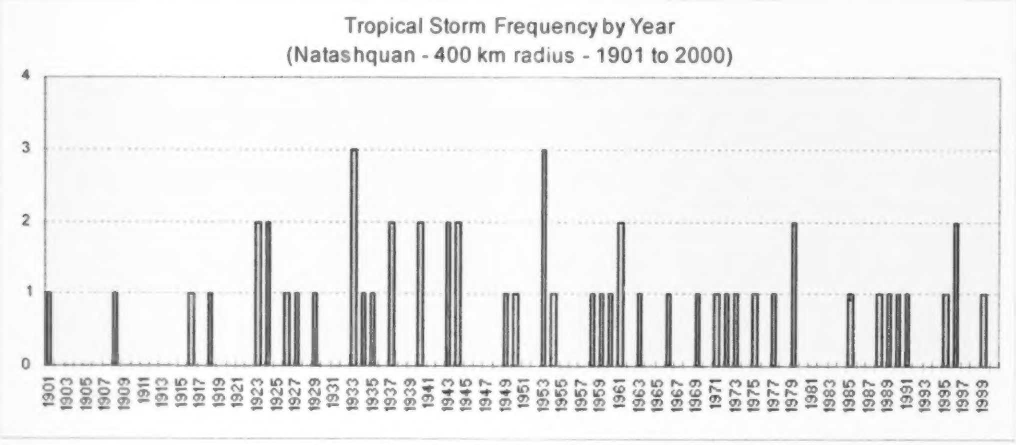




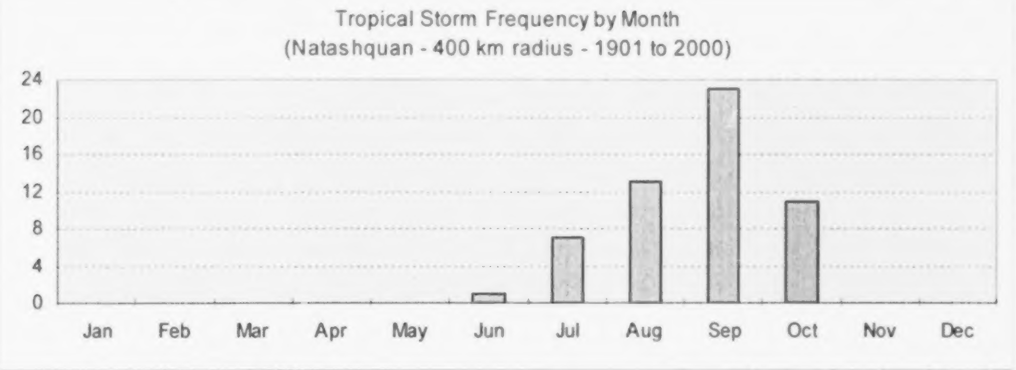
400 km Graphs - Frequency by Time-Periods (1901-2000)



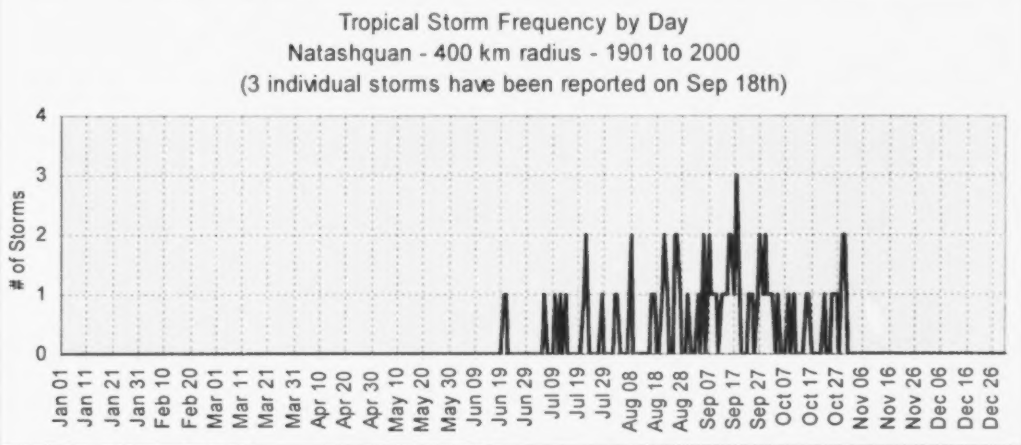




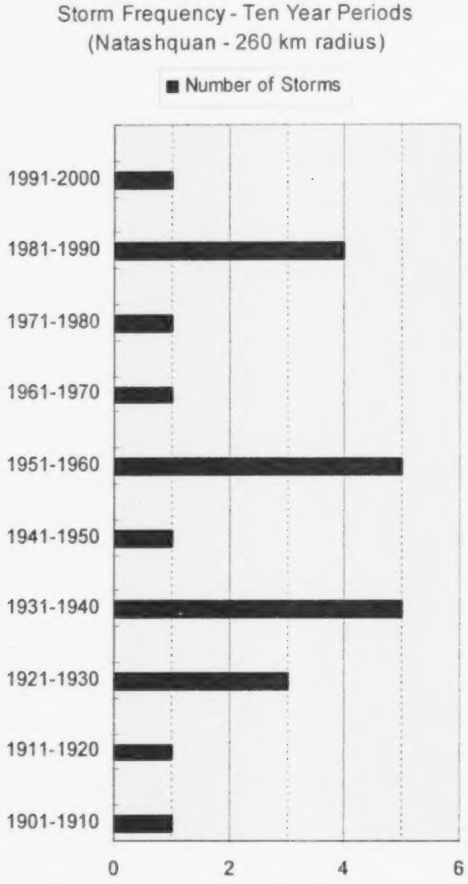
Note: Storms that span months were counted in both months

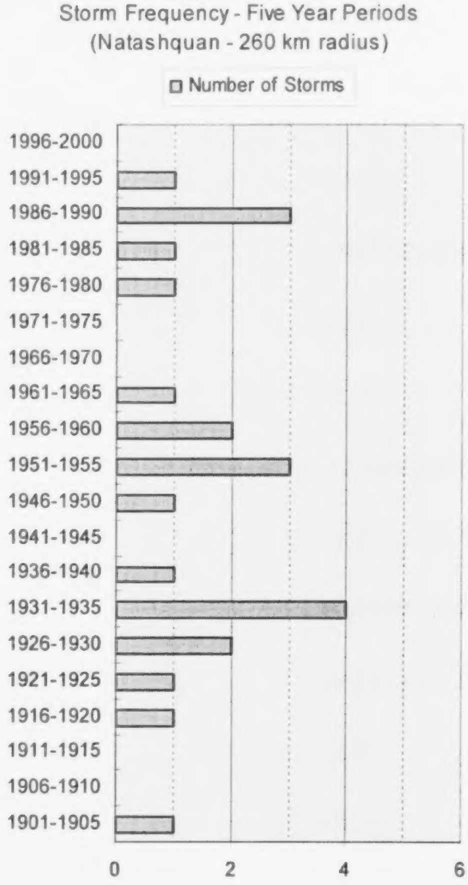


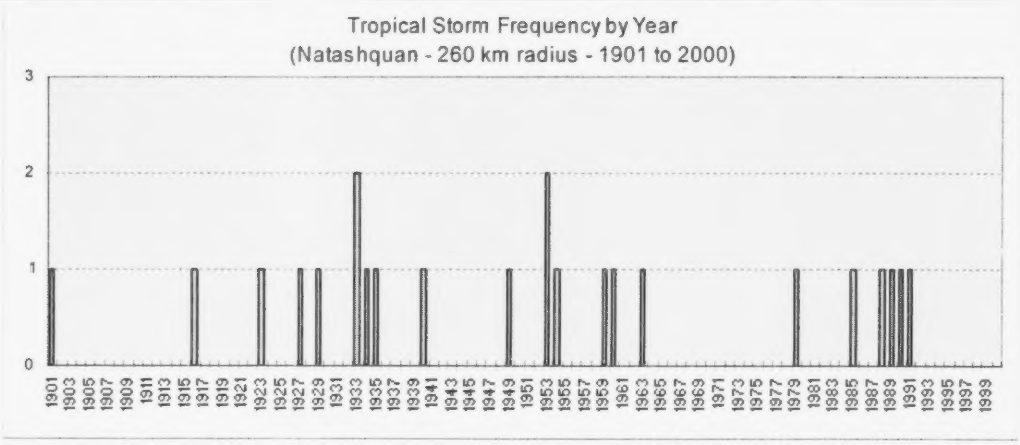
Note: Storms will generally span more than one day. The storm is counted in each day



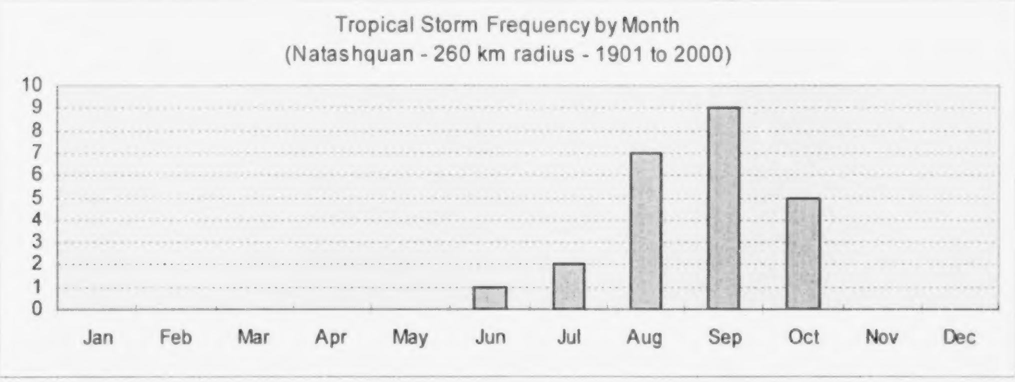
260 km Graphs - Frequency by Time-Periods (1901-2000)


Storm Frequency - Ten Year Periods (Natashquan - 260 km radius)

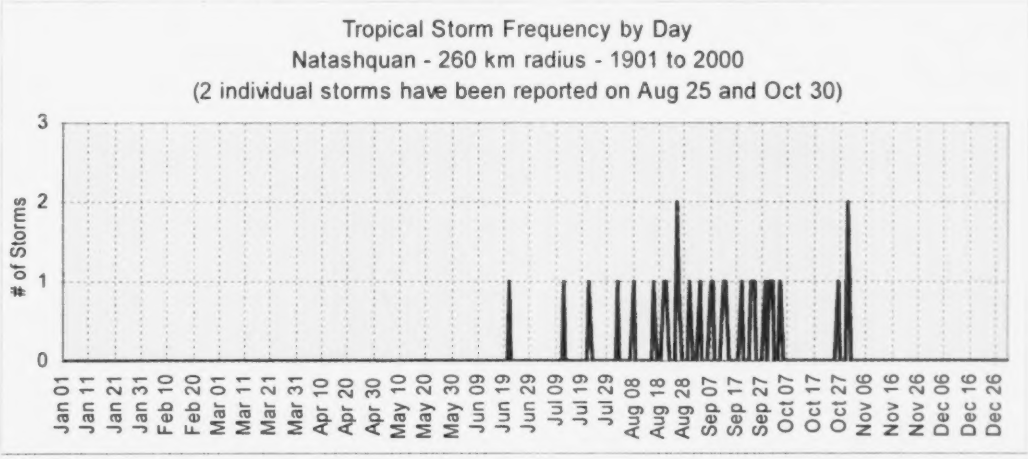

Storm Frequency - Five Year Periods (Natashquan - 260 km radius)


Tropical Storm Frequency by Year (Natashquan - 260 km radius - 1901 to 2000)

Note: Storms that span months were counted in both months


Tropical Storm Frequency by Month
(Natashquan - 260 km radius - 1901 to 2000)

Note: Storms will generally span more than one day. The storm is counted in each day


Tropical Storm Frequency by Day
Natashquan - 260 km radius - 1901 to 2000
(2 individual storms have been reported on Aug 25 and Oct 30)

Natashquan – Summary Statistics 260 km Radius (gale swath)

100 Yr	**TD**	**TS**	**G**	**S**	**S1**	**S2**	**S3**	**S4**	**S5**	**H**	**<H**	**ALL**	**Sys-Spd**
#	3	17	9	8	2	1	0	0	0	3	20	23	29.7
Return	33.3	5.9	11.1	12.5	50	100	NA	NA	NA	33.3	5	4.3	
50 Yr	TD	TS	G	S	S1	S2	S3	S4	S5	H	<H	ALL	Sys-Spd
#	0	10	4	6	2	0	0	0	0	2	10	12	31.0
Return	**NA**	**5**	**12.5**	**8.3**	**25**	**NA**	**NA**	**NA**	**NA**	**25**	**5**	**4.2**	

Natashquan – Summary Statistics 400 km Radius (trace precipitation swath)

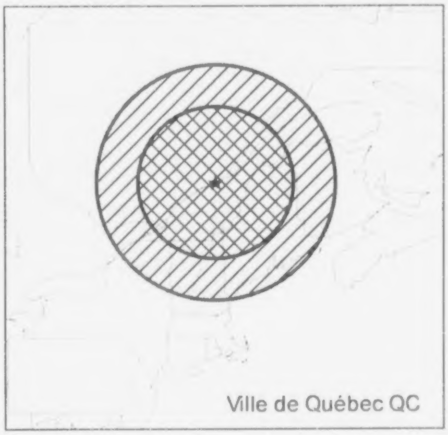
100 Yr	TD	TS	G	S	S1	S2	S3	S4	S5	H	<H	ALL	Sys-Spd
#	5	36	20	16	10	3	0	0	0	13	41	54	28.9
Return	20	2.8	5	6.3	10	33.3	NA	NA	NA	7.7	2.4	1.9	
50 Yr	**TD**	**TS**	**G**	**S**	**S1**	**S2**	**S3**	**S4**	**S5**	**H**	**<H**	**ALL**	**Sys-Spd**
#	1	21	9	12	4	2	0	0	0	6	22	28	30.5
Return	50	2.4	5.6	4.2	12.5	25	NA	NA	NA	8.3	2.3	1.8	

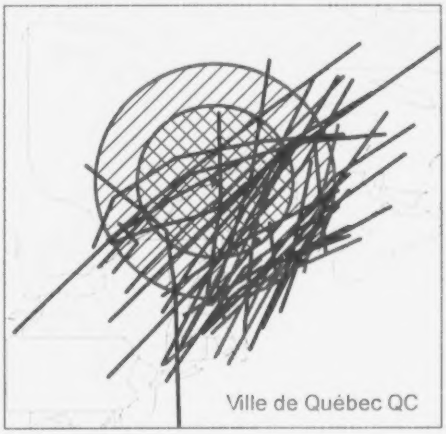
Natashquan – Storms That Tracked Within 400 km of Site (R) and within 260 km of the Site (R/W)

Name	Date	S#	MaxWind (kts)	SS Scale	AvgSysSpd (kts)	Pres (mb)	Comment	ENSO	R(km) R/W
Not Named	Sep 30, 1901	8	30	TD	25.6		E	Neutral	260 TD
Not Named	Aug 03, 1908	2	60	TS	24.3		E	La Nina	400 R
Not Named	Jul 22, 1916	2	45	TS	40.6			La Nina	260 R/W
Not Named	Sep 07, 1918	4	45	TS	20.5		E	El Nino	400 R
Not Named	Oct 02, 1923	2	70	SS1	20.2		E	Neutral	400 R
Not Named	Oct 27, 1923	4	35	TS	20.8		E	Neutral	260 TD
Not Named	Aug 27, 1924	2	80	SS1	29.5		E	La Nina	400 R
Not Named	Sep 05, 1924	3	65	SS1	26.8		E	La Nina	400 R
Not Named	Aug 08, 1926	2	65	SS1	25.9		E	Neutral	400 R
Not Named	Aug 25, 1927	1	90	SS2	51.0		E	Neutral	260 R/W
Not Named	Oct 04, 1929	2	25	TD	62.0		E	El Nino	260 TD
Not Named	Aug 26, 1933	8	20	TD	24.3			Neutral	400 TD
Not Named	Sep 18, 1933	13	60	TS	15.3		E	Neutral	260 R/W
Not Named	Oct 29, 1933	20	55	TS	11.6		E	Neutral	260 R/W
Not Named	Jun 20, 1934	2	40	TS	18.2		E	Neutral	260 R/W
Not Named	Aug 25, 1935	1	65	SS1	8.2		E	Neutral	260 R/W
Not Named	Sep 14, 1937	4	35	TS	24.1			Neutral	400 R
Not Named	Sep 26, 1937	7	70	SS1	26.5		E	Neutral	400 R
Not Named	Sep 03, 1940	4	45	TS	26.6			El Nino	260 R/W
Not Named	Sep 17, 1940	5	45	TS	13.3			El Nino	400 R
Not Named	Sep 09, 1943	4	60	TS	34.7			Neutral	400 R
Not Named	Sep 16, 1943	5	35	TS	26.4		E	Neutral	400 R
Not Named	Sep 15, 1944	7	35	TS	42.1	982	E	La Nina	400 R
Not Named	Oct 22, 1944	11	45	TS	32.5		E	La Nina	400 R
Not Named	Aug 30, 1949	2	35	TS	30.0		E	La Nina	260 R/W
Able	Aug 21, 1950	1	30	TD	26.1			Neutral	400 TD
Barbara	Aug 16, 1953	2	55	TS	41.7		E	Neutral	260 R/W
Carol	Sep 08, 1953	4	60	TS	30.6		E	Neutral	260 R/W
Not Named	Oct 08, 1953	10	60	TS	27.3		E	Neutral	400 R
Edna	Sep 12, 1954	5	65	SS1	36.8		E	La Nina	260 R/W
Helene	Sep 29, 1958	8	65	SS1	38.5	966		Neutral	400 R
Cindy	Jul 12, 1959	4	45	TS	29.1		E	Neutral	260 R/W
Donna	Sep 13, 1960	5	60	TS	38.4		E	Neutral	260 R/W
Esther	Sep 27, 1961	5	30	TD	19.9		E	Neutral	400 TD
Not Named	Sep 15, 1961	6	35	TS	60.6			Neutral	400 R
Ginny	Oct 29, 1963	8	90	SS2	27.1		E	El Nino	260 R/W
Celia	Jul 21, 1966	3	65	SS1	30.3		E	Neutral	400 R
Gerda	Sep 10, 1969	7	95	SS2	45.8	979		El Nino	400 R
Beth	Aug 17, 1971	3	60	TS	16.3	998	E	La Nina	400 R
Carrie	Sep 05, 1972	4	40	TS	10.4		E	El Nino	400 R
Alice	Jul 06, 1973	1	60	TS	36.9	991		La Nina	400 R
Blanche	Jul 28, 1975	2	60	TS	37.5	988	E	La Nina	400 R
Evelyn	Oct 15, 1977	5	70	SS1	19.0	998		Neutral	400 R
David	Sep 07, 1979	4	55	TS	36.3	986	E	Neutral	260 R/W
Subtrop 1	Oct 25, 1979	9	60	TS	42.8	980	S	Neutral	400 R

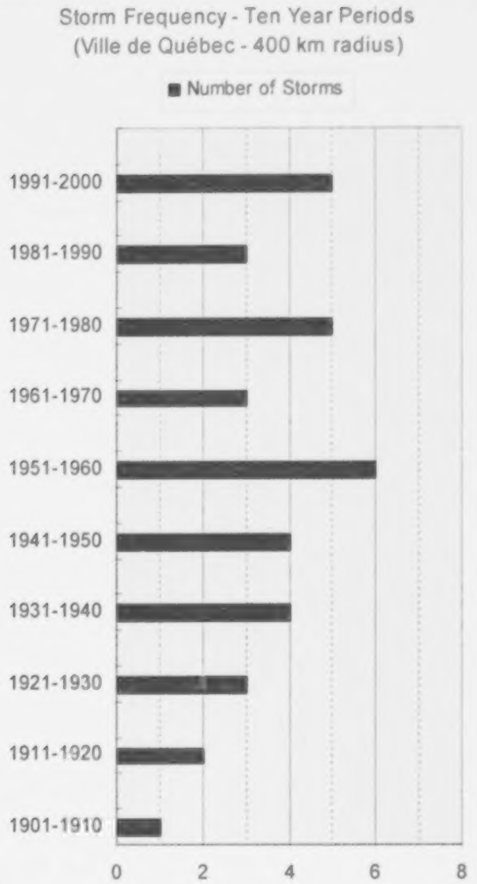
Name	Date	S#	MaxWind (kts)	SS Scale	AvgSysSpd (kts)	Pres (mb)	Comment	ENSO	R(km) R/W
Gloria	Sep 28, 1985	7	50	TS	24.7	987	E	Neutral	260 R/W
Alberto	Aug 08, 1988	1	35	TS	29.2	1004		La Nina	260 R/W
Hugo	Sep 23, 1989	8	40	TS	16.0	992	E	Neutral	260 R/W
Bertha	Aug 02, 1990	2	60	TS	24.0	978	E	Neutral	260 R/W
Bob	Aug 20, 1991	2	45	TS	26.6	998		El Nino	260 R/W
Barry	Jul 10, 1995	2	45	TS	22.8	990		Neutral	400 R
Bertha	Jul 14, 1996	2	50	TS	32.3	995	E	Neutral	400 R
Josephine	Oct 10, 1996	10	45	TS	29.3	985	E	Neutral	400 R
Floyd	Sep 18, 1999	6	35	TS	24.0	992	E	La Nina	400 R

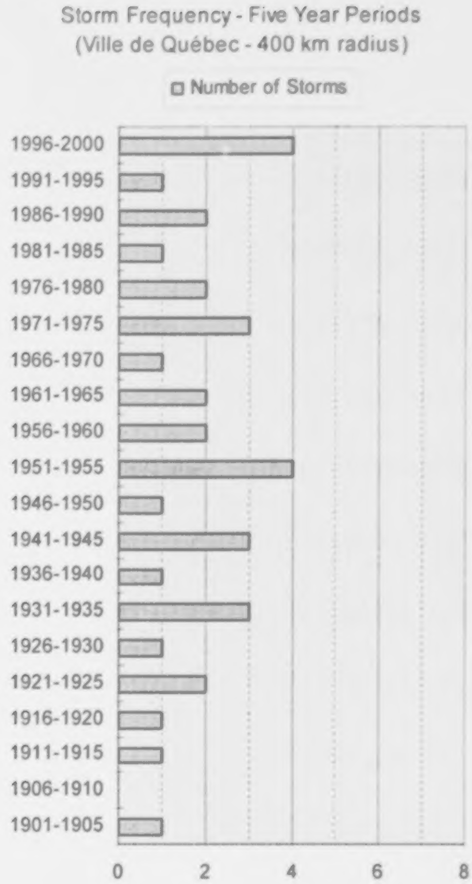
Ville de Québec

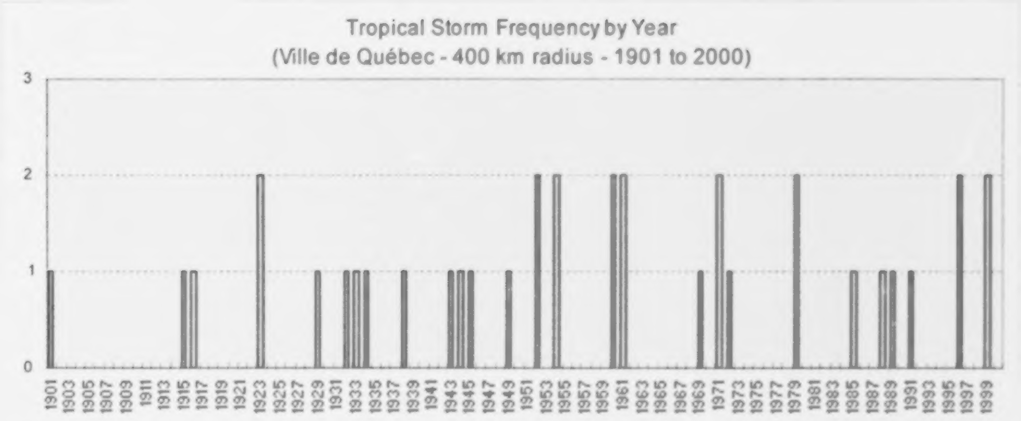




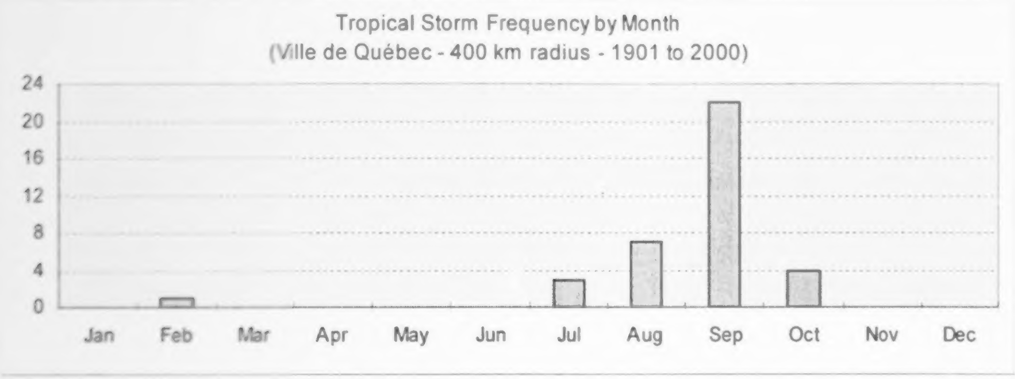
400 km Graphs - Frequency by Time-Periods (1901-2000)



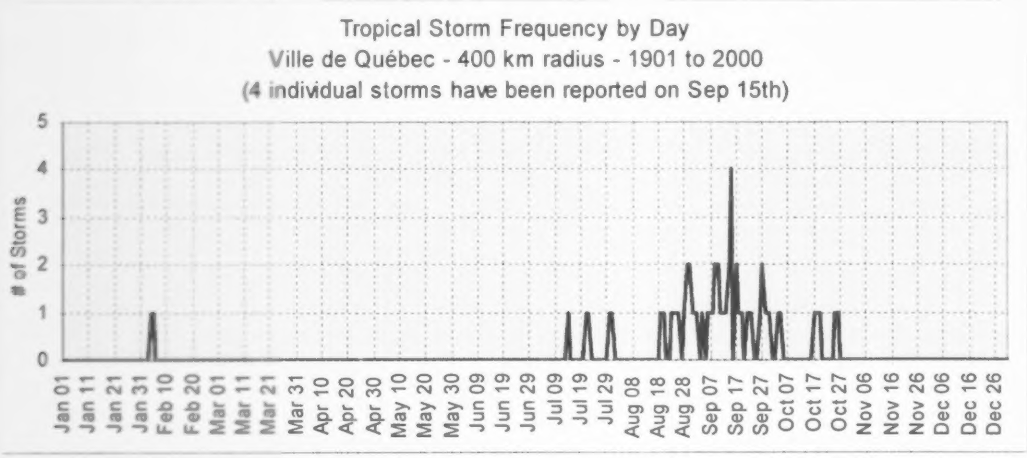




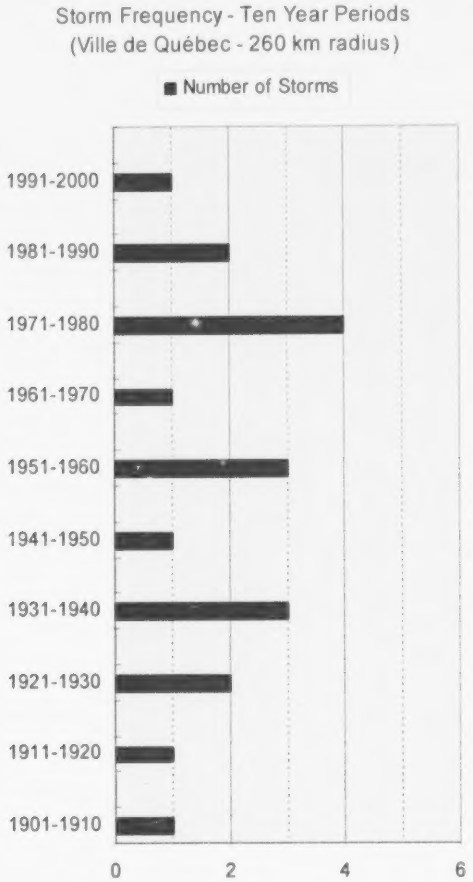
Note: Storms that span months were counted in both months

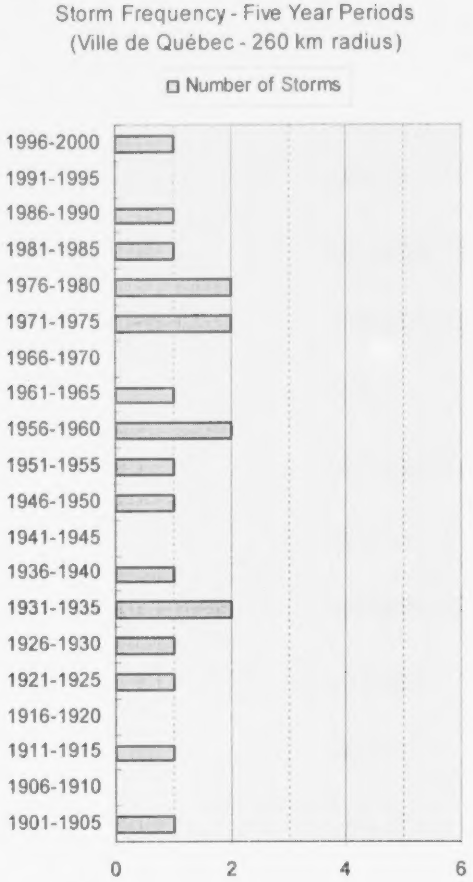


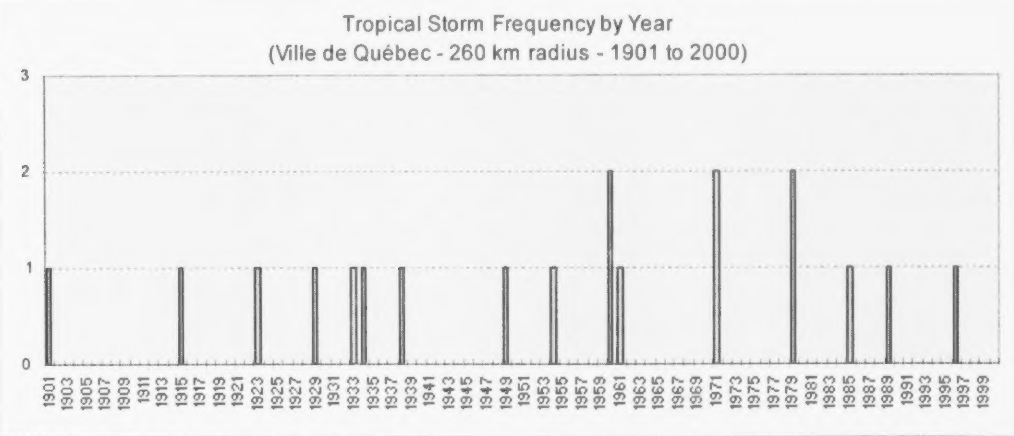
Note: Storms will generally span more than one day. The storm is counted in each day



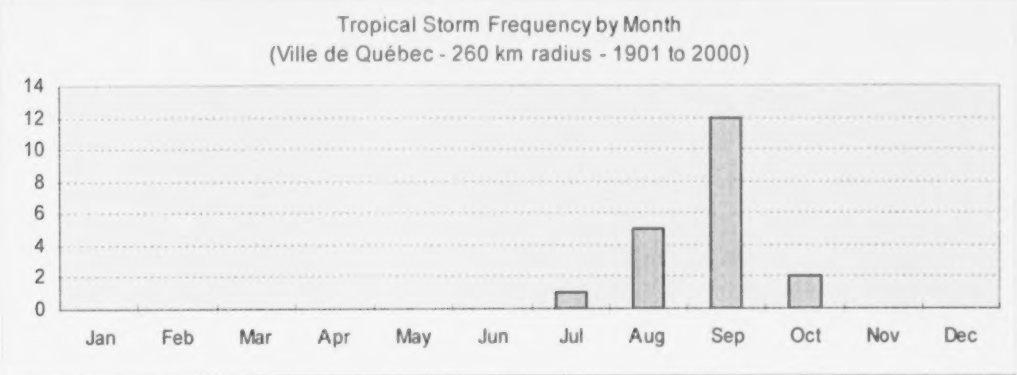
260 km Graphs - Frequency by Time-Periods (1901-2000)



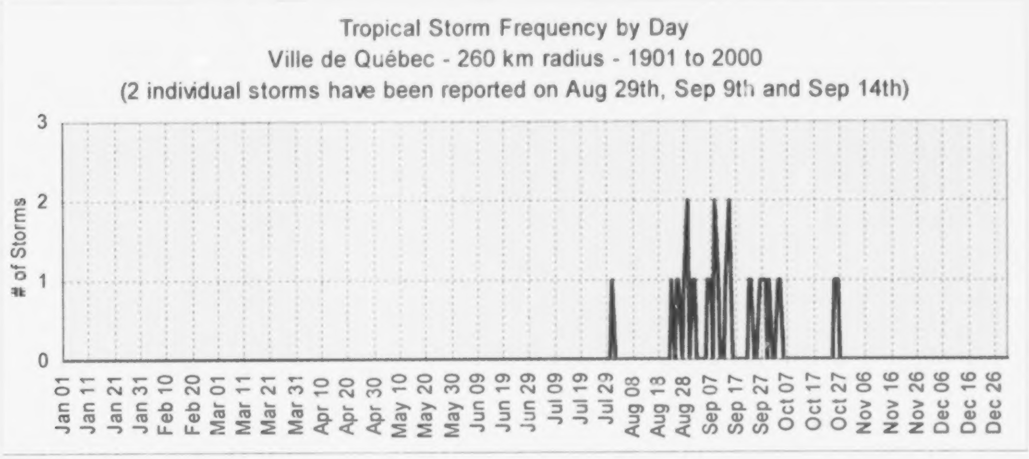




Note: Storms that span months were counted in both months



Note: Storms will generally span more than one day. The storm is counted in each day



Ville de Québec – Summary Statistics 260 km Radius (gale swath)

100 Yr	**TD**	**TS**	**G**	**S**	**S1**	**S2**	**S3**	**S4**	**S5**	**H**	**<H**	**ALL**	**Sys-Spd**
#	8	7	7	0	4	0	0	0	0	4	15	19	30.3
Return	12.5	14.3	14.3	NA	25	NA	NA	NA	NA	25	6.7	5.3	
50 Yr	**TD**	**TS**	**G**	**S**	**S1**	**S2**	**S3**	**S4**	**S5**	**H**	**<H**	**ALL**	**Sys-Spd**
#	3	5	5	0	3	0	0	0	0	3	8	11	33.9
Return	16.7	10	10	NA	16.7	NA	NA	NA	NA	16.7	6.3	4.5	

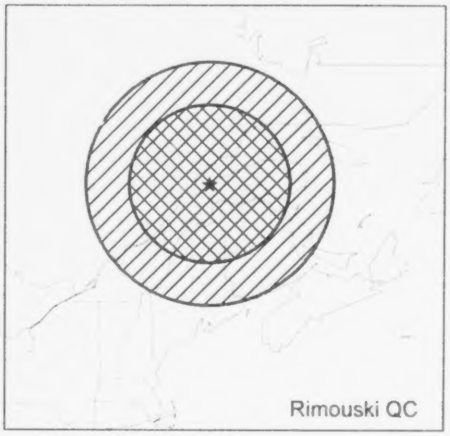
Ville de Québec – Summary Statistics 400 km Radius (trace precipitation swath)

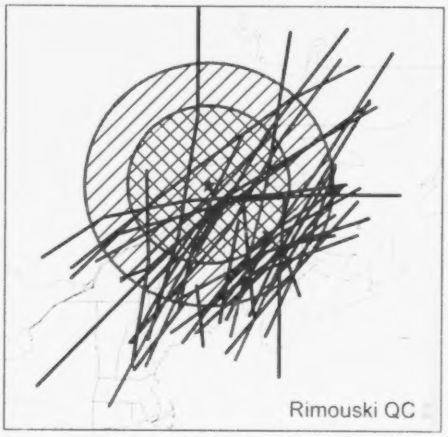
100 Yr	TD	TS	G	S	S1	S2	S3	S4	S5	H	<H	ALL	Sys-Spd
#	10	17	13	4	6	3	0	0	0	9	27	36	28.7
Return	10	5.9	7.7	25	16.7	33.3	NA	NA	NA	11.1	3.7	2.8	
50 Yr	**TD**	**TS**	**G**	**S**	**S1**	**S2**	**S3**	**S4**	**S5**	**H**	**<H**	**ALL**	**Sys-Spd**
#	5	11	7	4	4	2	0	0	0	6	16	22	30.8
Return	10	4.5	7.1	12.5	12.5	25	NA	NA	NA	8.3	3.1	2.3	

Ville de Québec – Storms That Tracked Within 400 km of Site (R) and within 260 km of the Site (R/W)

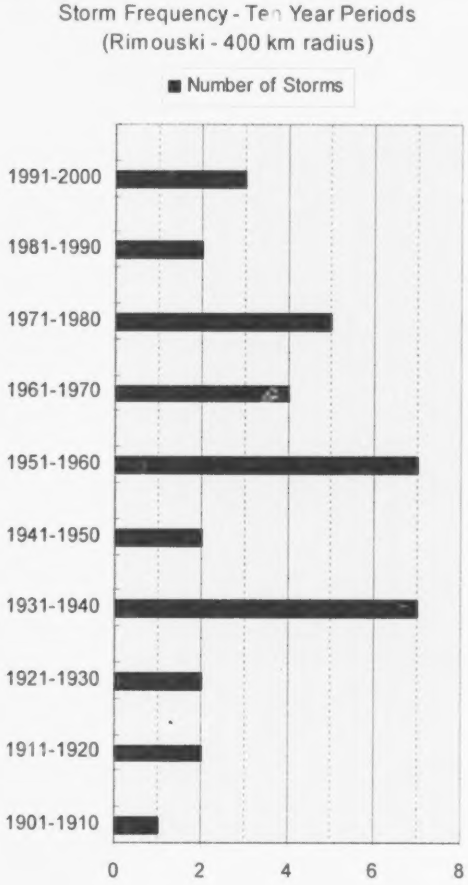
Name	Date	S#	MaxWind (kts)	SS Scale	AvgSysSpd (kts)	Pres (mb)	Comment	ENSO	R(km) R/W
Not Named	Sep 29, 1901	8	25	TD	24.8		E	Neutral	260 TD
Not Named	Aug 23, 1915	2	25	TD	16.4		E	Neutral	260 TD
Not Named	Jul 21, 1916	2	65	SS1	27.1			La Nina	400 R
Not Named	Oct 25, 1923	4	30	TD	22.1		E	Neutral	260 TD
Not Named	Oct 19, 1923	5	35	TS	12.2			Neutral	400 R
Not Named	Oct 03, 1929	2	30	TD	23.4		E	El Nino	260 TD
Not Named	Sep 17, 1932	5	35	TS	25.0		E	Neutral	400 R
Not Named	Aug 24, 1933	8	35	TS	11.7			Neutral	260 TD
Not Named	Sep 09, 1934	6	40	TS	25.5		E	Neutral	260 R/W
Not Named	Sep 21, 1938	4	85	SS2	31.5	940	E	La Nina	260 R/W
Not Named	Oct 17, 1943	9	35	TS	34.2		E	Neutral	400 R
Not Named	Sep 15, 1944	7	65	SS1	34.3	966		La Nina	400 R
Not Named	Sep 19, 1945	9	25	TD	28.6		E	Neutral	400 TD
Not Named	Aug 29, 1949	2	35	TS	39.9	1000		La Nina	260 R/W
Not Named	Feb 04, 1952	1	50	TS	30.9		E	Neutral	400 R
Able	Sep 02, 1952	2	25	TD	10.3			Neutral	400 TD
Carol	Aug 31, 1954	3	75	SS1	29.2	976	E	La Nina	260 R/W
Edna	Sep 11, 1954	5	80	SS1	45.8			La Nina	400 R
Brenda	Jul 30, 1960	3	45	TS	31.5			Neutral	260 R/W
Donna	Sep 13, 1960	5	75	SS1	38.8			Neutral	260 R/W
Esther	Sep 26, 1961	5	35	TS	20.4			Neutral	260 TD
Not Named	Sep 15, 1961	6	35	TS	51.4			Neutral	400 R
Gerda	Sep 10, 1969	7	95	SS2	46.2	979		El Nino	400 R
Doria	Aug 28, 1971	5	45	TS	26.4	997		La Nina	260 R/W
Heidi	Sep 14, 1971	9	40	TS	18.1	998		La Nina	260 R/W
Carrie	Sep 04, 1972	4	50	TS	14.4		E	El Nino	400 R
David	Sep 07, 1979	4	45	TS	31.6	991	E	Neutral	260 R/W
Frederic	Sep 14, 1979	6	30	TD	78.7	998	E	Neutral	260 TD
Gloria	Sep 27, 1985	7	75	SS1	32.4	964		Neutral	260 R/W
Chris	Aug 30, 1988	3	20	TD	37.0	1008		La Nina	400 TD
Hugo	Sep 23, 1989	8	40	TS	45.4	990	E	Neutral	260 R/W
Bob	Aug 19, 1991	2	85	SS2	23.5	964		El Nino	400 R
Bertha	Jul 14, 1996	2	60	TS	28.8	994		Neutral	400 R
Fran	Sep 09, 1996	6	25	TD	11.4	1002	E	Neutral	260 TD
Dennis	Sep 08, 1999	4	20	TD	9.9	1006	E	La Nina	400 TD
Floyd	Sep 17, 1999	6	50	TS	14.6	983		La Nina	400 R

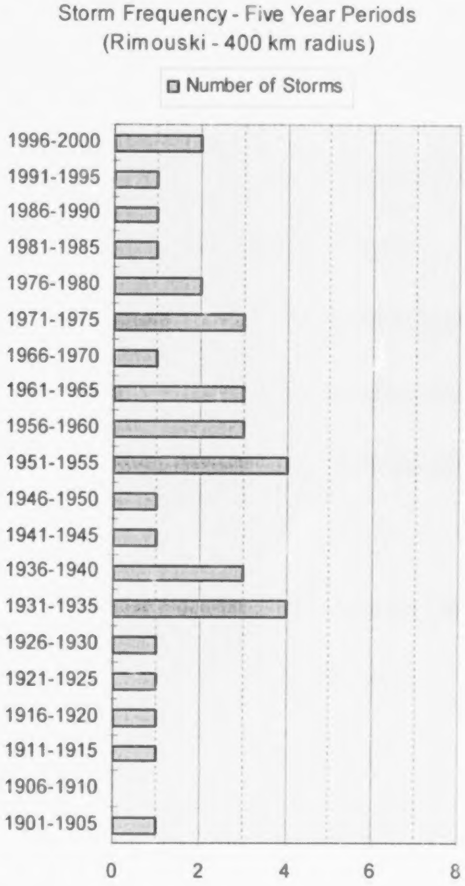
Rimouski

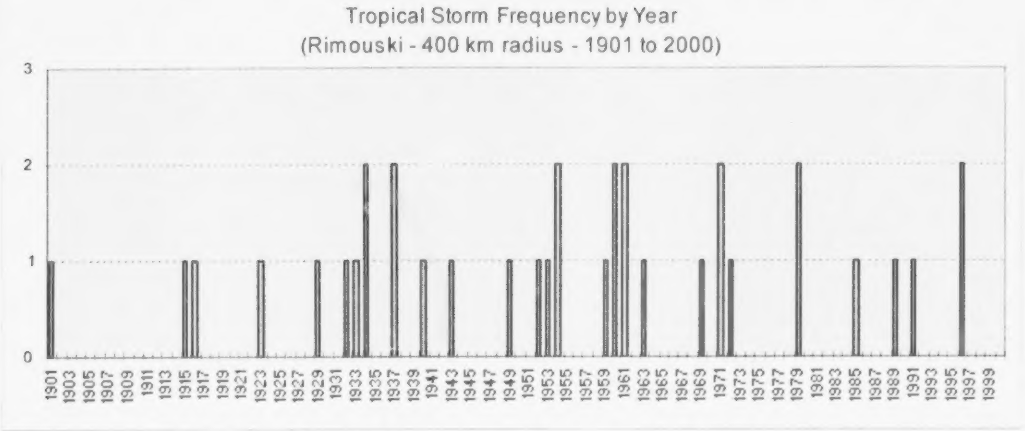




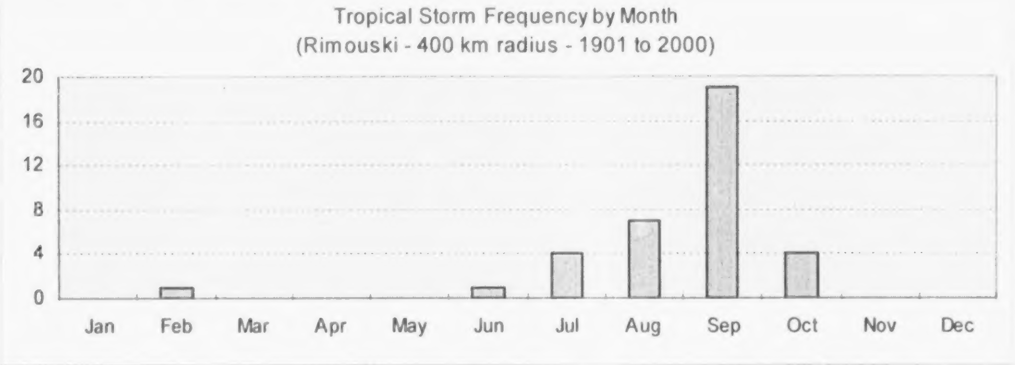
400 km Graphs - Frequency by Time-Periods (1901-2000)





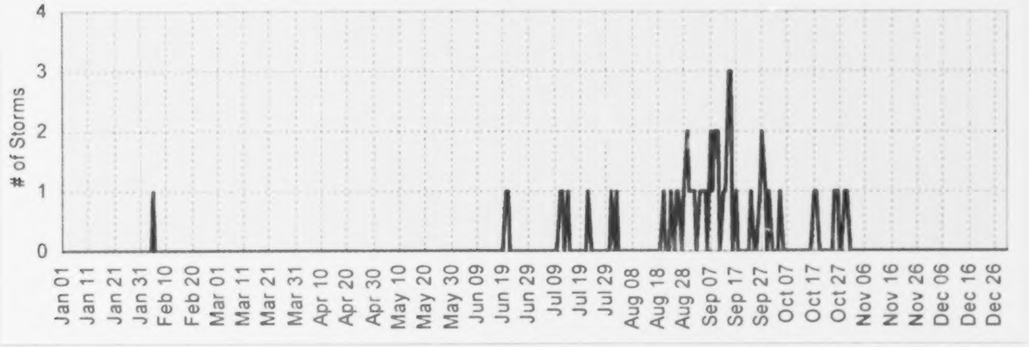


Note: Storms that span months were counted in both months



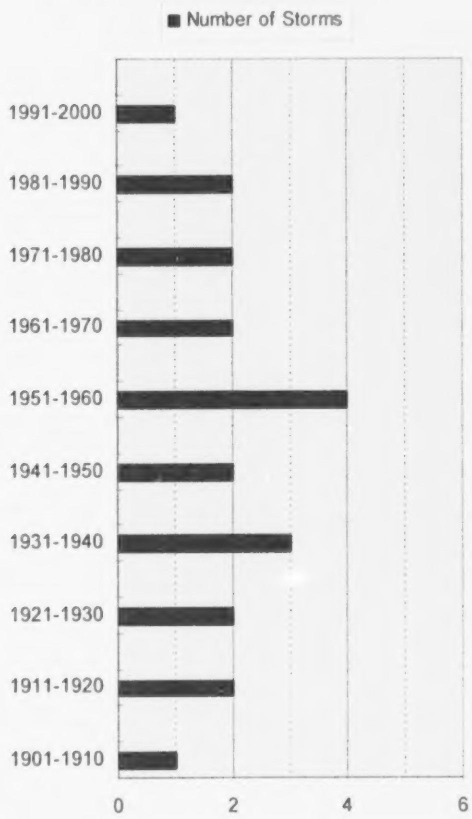
Note: Storms will generally span more than one day. The storm is counted in each day

Tropical Storm Frequency by Day
Rimouski - 400 km radius - 1901 to 2000
(3 individual storms have been reported on Sep 14th and Sep 15th)

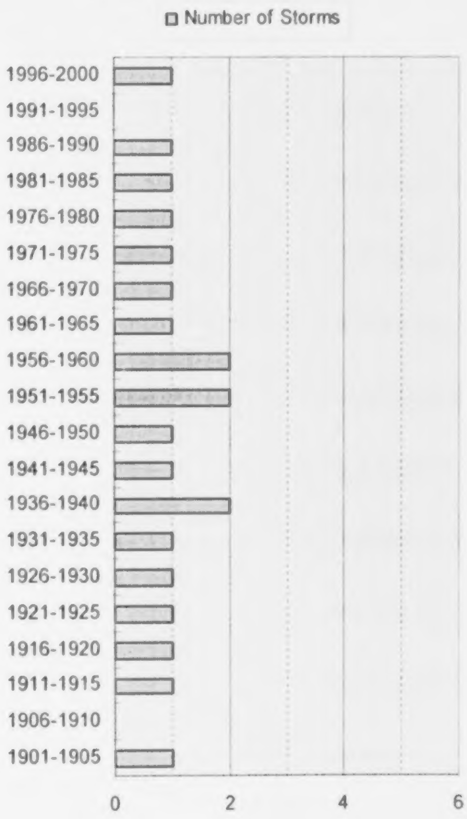


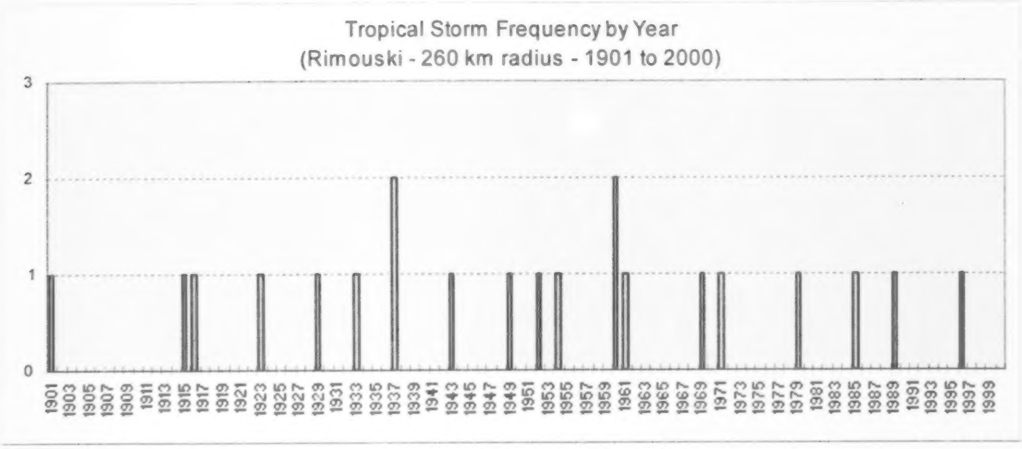
260 km Graphs - Frequency by Time-Periods (1901-2000)

Storm Frequency - Ten Year Periods
(Rimouski - 260 km radius)

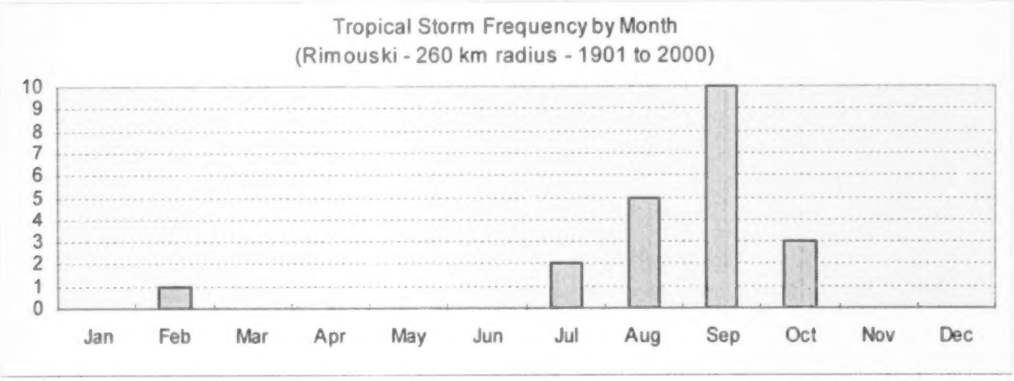


Storm Frequency - Five Year Periods
(Rimouski - 260 km radius)

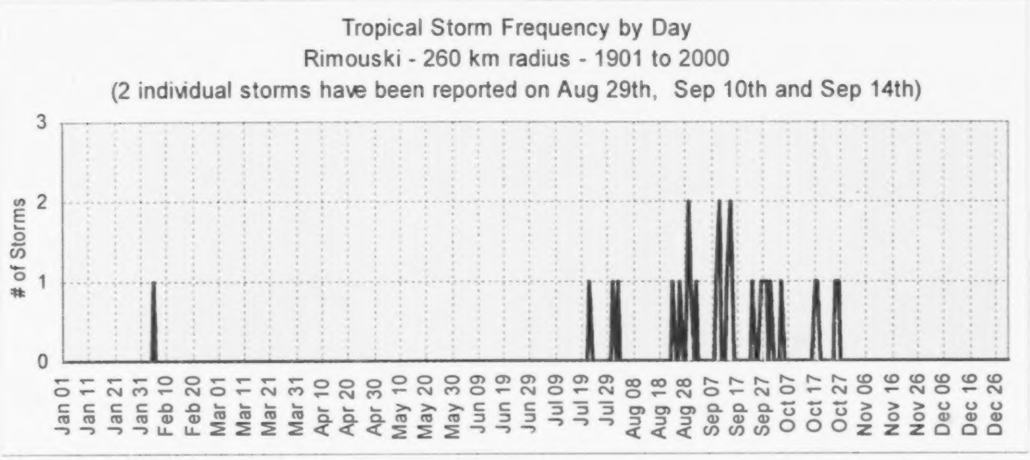



Tropical Storm Frequency by Year
(Rimouski - 260 km radius - 1901 to 2000)

Note: Storms that span months were counted in both months


Tropical Storm Frequency by Month
(Rimouski - 260 km radius - 1901 to 2000)

Note: Storms will generally span more than one day. The storm is counted in each day


Tropical Storm Frequency by Day
Rimouski - 260 km radius - 1901 to 2000
(2 individual storms have been reported on Aug 29th, Sep 10th and Sep 14th)

Rimouski – Summary Statistics 260 km Radius (gale swath)

100 Yr	TD	TS	G	S	S1	S2	S3	S4	S5	H	<H	ALL	Sys-Spd
#	9	10	7	3	1	1	0	0	0	2	19	21	30.7
Return	11.1	10	14.3	33.3	100	100	NA	NA	NA	50	5.3	4.8	
50 Yr	**TD**	**TS**	**G**	**S**	**S1**	**S2**	**S3**	**S4**	**S5**	**H**	**<H**	**ALL**	**Sys-Spd**
#	3	6	4	2	1	1	0	0	0	2	9	11	34.2
Return	16.7	8.3	12.5	25	50	50	NA	NA	NA	25	5.6	4.5	

Rimouski – Summary Statistics 400 km Radius (trace precipitation swath)

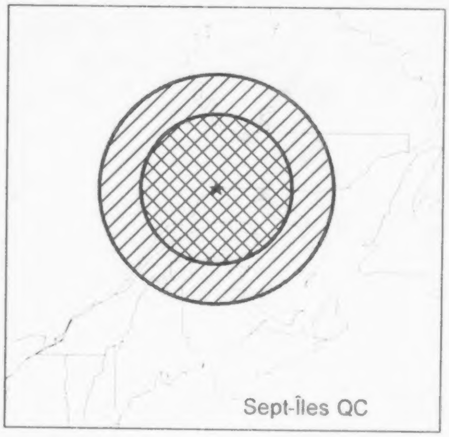
100 Yr	TD	TS	G	S	S1	S2	S3	S4	S5	H	<H	ALL	Sys-Spd
#	8	20	12	8	5	2	0	0	0	7	28	35	29.5
Return	12.5	5	8.3	12.5	20	50	NA	NA	NA	14.3	3.6	2.9	
50 Yr	**TD**	**TS**	**G**	**S**	**S1**	**S2**	**S3**	**S4**	**S5**	**H**	**<H**	**ALL**	**Sys-Spd**
#	3	11	6	5	5	2	0	0	0	7	14	21	32.5
Return	16.7	4.5	8.3	10	10	25	NA	NA	NA	7.1	3.6	2.4	

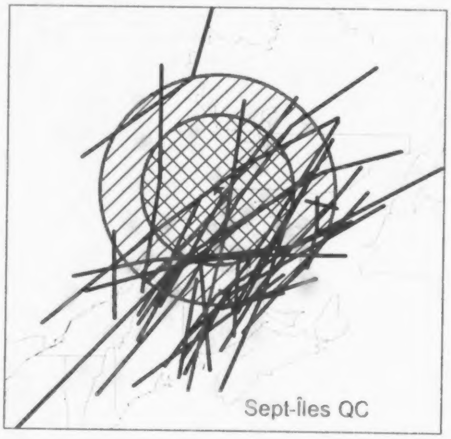
Rimouski – Storms That Tracked Within 400 km of Site (R) and within 260 km of the Site (R/W)

Name	Date	S#	MaxWind (kts)	SS Scale	AvgSysSpd (kts)	Pres (mb)	Comment	ENSO	R(km) R/W
Not Named	Sep 30, 1901	8	30	TD	25.9		E	Neutral	260 TD
Not Named	Aug 23, 1915	2	25	TD	26.7		E	Neutral	260 TD
Not Named	Jul 22, 1916	2	55	TS	28.5			La Nina	260 R/W
Not Named	Oct 25, 1923	4	30	TD	23.4		E	Neutral	260 TD
Not Named	Oct 04, 1929	2	25	TD	28.8		E	El Nino	260 TD
Not Named	Sep 17, 1932	5	35	TS	25.0		E	Neutral	400 R
Not Named	Aug 25, 1933	8	25	TD	15.6			Neutral	260 TD
Not Named	Jun 20, 1934	2	40	TS	20.3		E	Neutral	400 R
Not Named	Sep 09, 1934	6	40	TS	25.5		E	Neutral	400 R
Not Named	Aug 02, 1937	1	35	TS	11.3			Neutral	260 TD
Not Named	Sep 14, 1937	4	55	TS	26.5			Neutral	260 R/W
Not Named	Sep 03, 1940	4	55	TS	24.3			El Nino	400 R
Not Named	Oct 17, 1943	9	35	TS	34.2		E	Neutral	260 R/W
Not Named	Aug 29, 1949	2	35	TS	34.8		E	La Nina	260 R/W

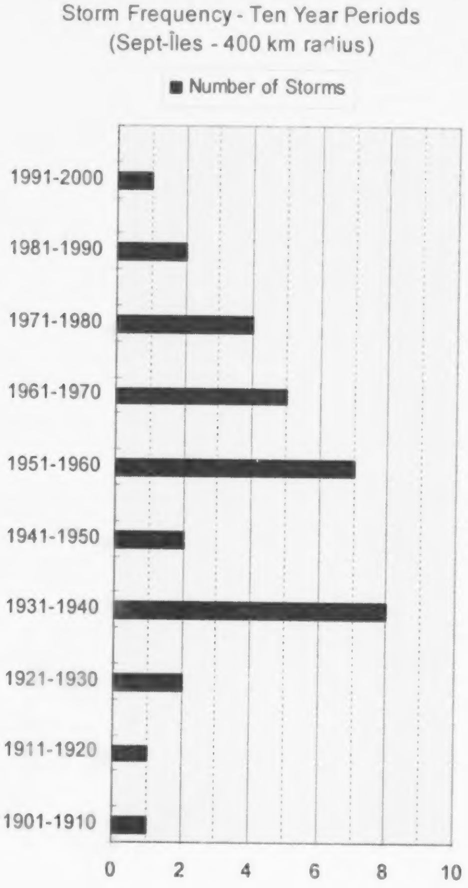
Name	Date	S#	MaxWind (kts)	SS Scale	AvgSysSpd (kts)	Pres (mb)	Comment	ENSO	R(km) R/W
Not Named	Feb 05, 1952	1	45	TS	30.5		E	Neutral	260 R/W
Carol	Sep 07, 1953	4	65	SS1	32.6			Neutral	400 R
Carol	Aug 31, 1954	3	75	SS1	29.2	976	E	La Nina	260 R/W
Edna	Sep 12, 1954	5	65	SS1	44.8		E	La Nina	400 R
Cindy	Jul 11, 1959	4	50	TS	30.0		E	Neutral	400 R
Brenda	Jul 31, 1960	3	40	TS	34.6			Neutral	260 R/W
Donna	Sep 13, 1960	5	75	SS1	38.5			Neutral	260 R/W
Esther	Sep 26, 1961	5	30	TD	18.8	1002		Neutral	260 TD
Not Named	Sep 15, 1961	6	35	TS	60.6			Neutral	400 R
Ginny	Oct 29, 1963	8	90	SS2	27.1		E	El Nino	400 R
Gerda	Sep 10, 1969	7	95	SS2	45.8	979		El Nino	260 R/W
Doria	Aug 28, 1971	5	45	TS	24.8			La Nina	260 R/W
Heidi	Sep 14, 1971	9	40	TS	18.1	[illegible]8		La Nina	400 R
Carrie	Sep 04, 1972	4	50	TS	10.0		E	El Nino	400 R
David	Sep 07, 1979	4	50	TS	32.0	988	E	Neutral	400 R
Frederic	Sep 14, 1979	6	30	TD	78.7	998	E	Neutral	260 TD
Gloria	Sep 27, 1985	7	75	SS1	30.5	964		Neutral	260 R/W
Hugo	Sep 23, 1989	8	40	TS	33.9	990	E	Neutral	260 R/W
Bob	Aug 20, 1991	2	60	TS	23.7	977		El Nino	400 R
Bertha	Jul 14, 1996	2	55	TS	28.9	995		Neutral	400 R
Fran	Sep 09, 1996	6	15	TD	9.6	1006	E	Neutral	260 TD

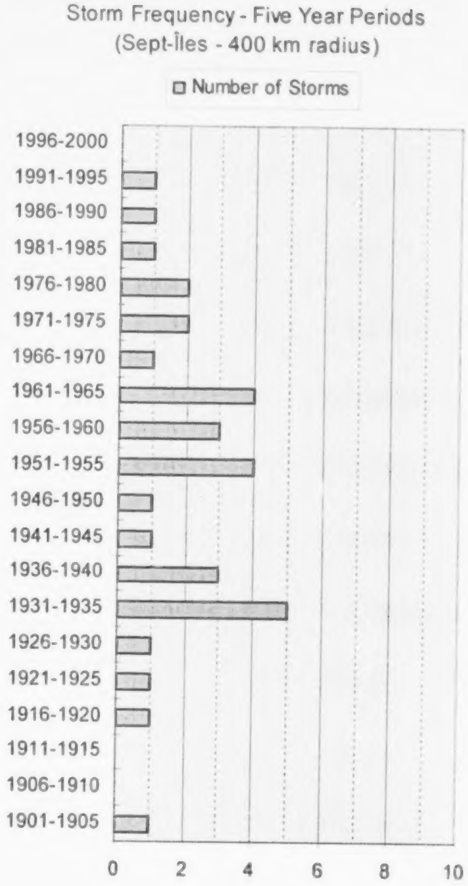
Sept-Îles

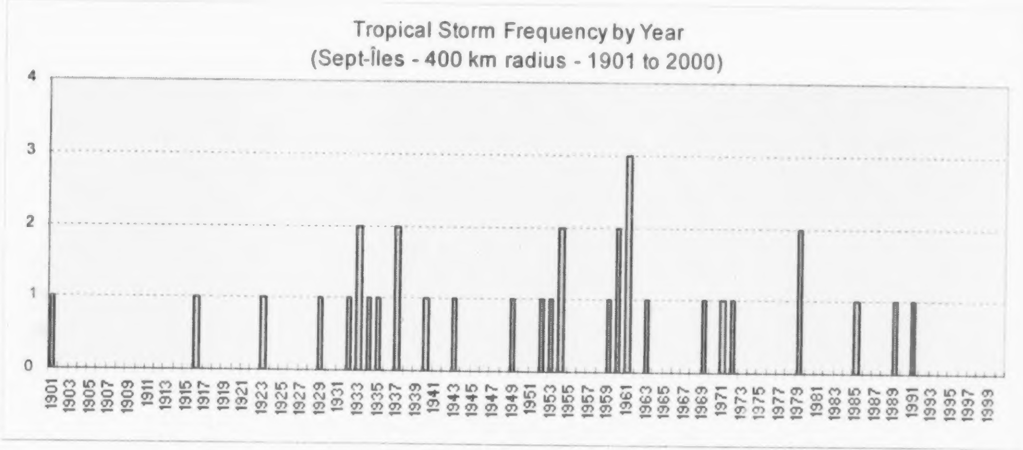




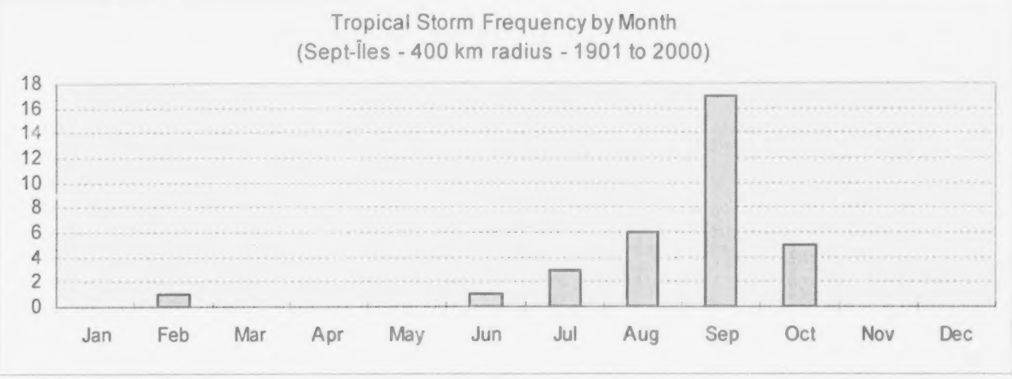
400 km Graphs - Frequency by Time-Periods (1901-2000)



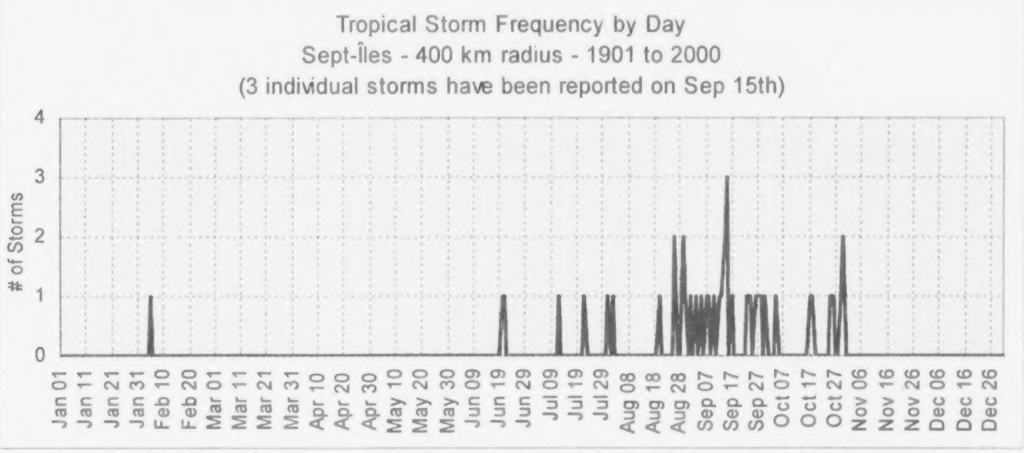




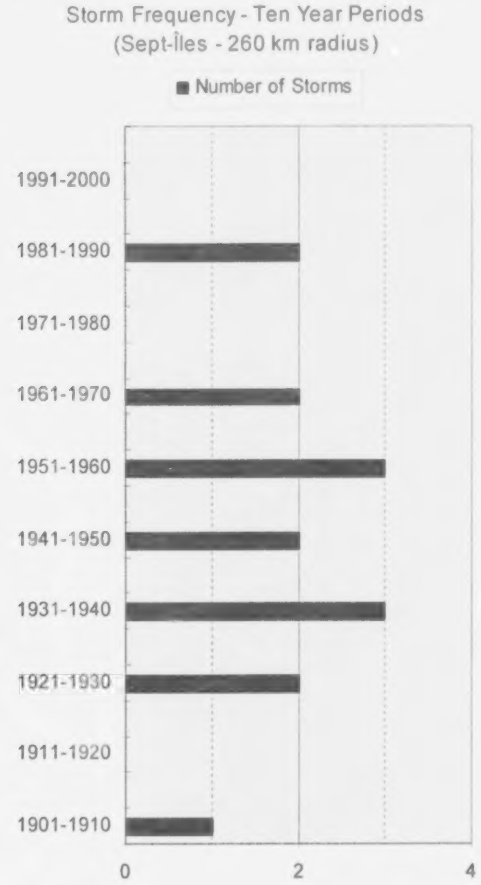
Note: Storms that span months were counted in both months

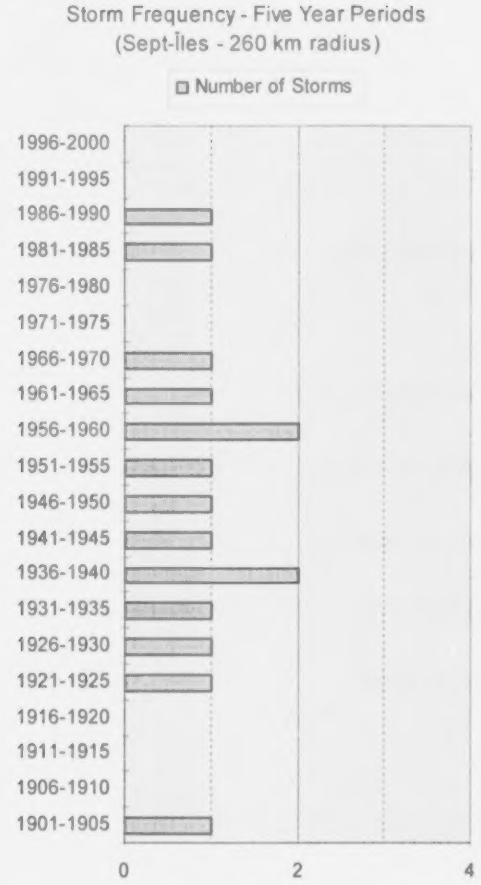


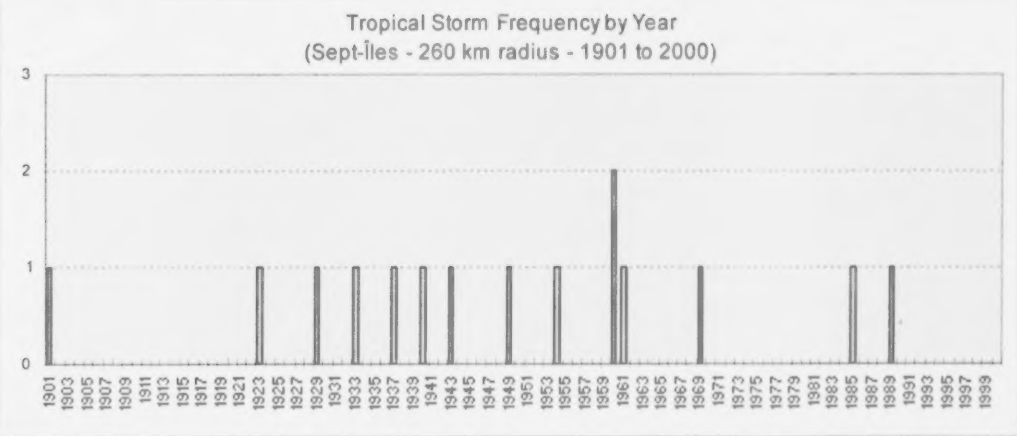
Note: Storms will generally span more than one day. The storm is counted in each day



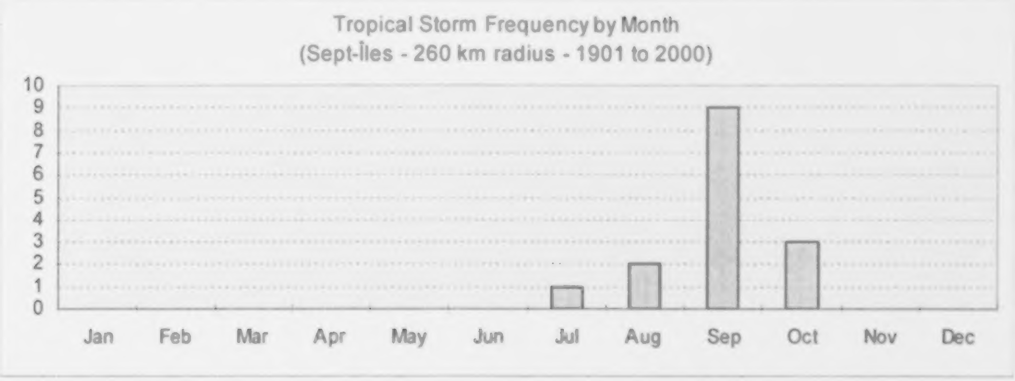
260 km Graphs - Frequency by Time-Periods (1901-2000)



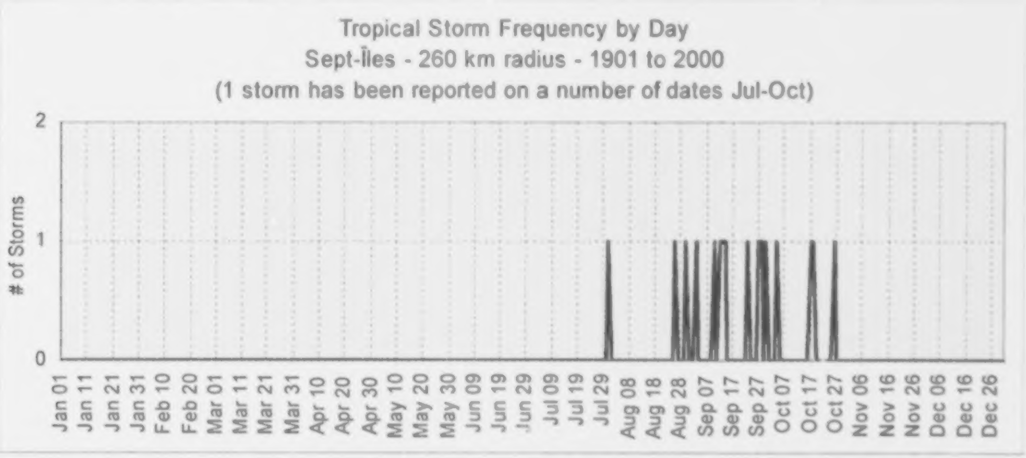




Note: Storms that span months were counted in both months



Note: Storms will generally span more than one day. The storm is counted in each day



Sept-Îles – Summary Statistics 260 km Radius (gale swath)

100 Yr	**TD**	**TS**	**G**	**S**	**S1**	**S2**	**S3**	**S4**	**S5**	**H**	**<H**	**ALL**	**Sys-Spd**
#	5	8	6	2	1	1	0	0	0	2	13	15	33.7
Return	20	12.5	16.7	50	100	100	NA	NA	NA	50	7.7	6.7	
50 Yr	**TD**	**TS**	**G**	**S**	**S1**	**S2**	**S3**	**S4**	**S5**	**H**	**<H**	**ALL**	**Sys-Spd**
#	1	4	2	2	1	1	0	0	0	2	5	7	35.1
Return	50	12.5	25	25	50	50	NA	NA	NA	25	10	7.1	

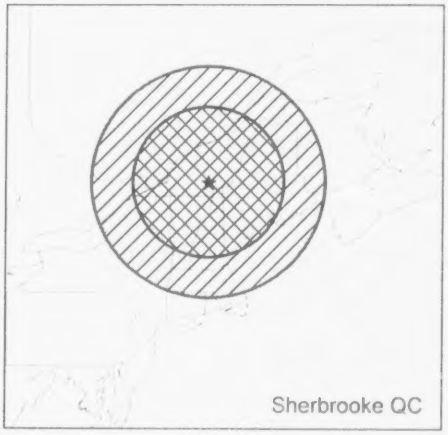
Sept-Îles – Summary Statistics 400 km Radius (trace precipitation swath)

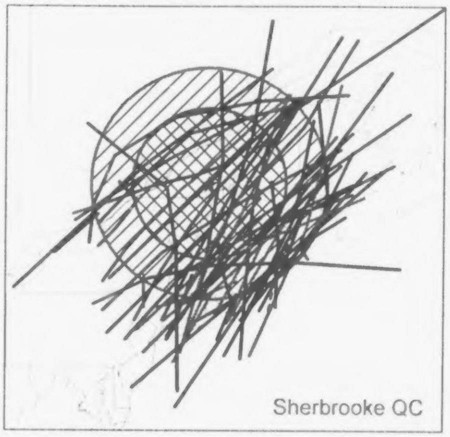
100 Yr	**TD**	**TS**	**G**	**S**	**S1**	**S2**	**S3**	**S4**	**S5**	**H**	**<H**	**ALL**	**Sys-Spd**
#	8	22	15	7	1	2	0	0	0	3	30	33	29.8
Return	12.5	4.5	6.7	14.3	100	50	NA	NA	NA	33.3	3.3	3	
50 Yr	**TD**	**TS**	**G**	**S**	**S1**	**S2**	**S3**	**S4**	**S5**	**H**	**<H**	**ALL**	**Sys-Spd**
#	3	13	7	6	1	2	0	0	0	3	16	19	34.1
Return	16.7	3.8	7.1	8.3	50	25	NA	NA	NA	16.7	3.1	2.6	

Sept-Îles – Storms That Tracked Within 400 km of Site (R) and within 260 km of the Site (R/W)

Name	**Date**	**S#**	**MaxWind (kts)**	**SS Scale**	**AvgSysSpd (kts)**	**Pres (mb)**	**Comment**	**ENSO**	**R(km) R/W**
Not Named	Sep 30, 1901	8	30	TD	28.2		E	Neutral	260 TD
Not Named	Jul 22, 1916	2	55	TS	36.4			La Nina	400 R
Not Named	Oct 26, 1923	4	30	TD	22.8		E	Neutral	260 TD
Not Named	Oct 04, 1929	2	25	TD	36.5		E	El Nino	260 TD
Not Named	Sep 17, 1932	5	35	TS	25.0		E	Neutral	400 R
Not Named	Aug 26, 1933	8	20	TD	18.9			Neutral	260 TD
Not Named	Oct 30, 1933	20	45	TS	11.1		E	Neutral	400 R
Not Named	Jun 20, 1934	2	40	TS	18.2		E	Neutral	400 R
Not Named	Aug 26, 1935	1	35	TS	9.9		E	Neutral	400 R
Not Named	Aug 02, 1937	1	30	TD	8.6			Neutral	400 TD
Not Named	Sep 14, 1937	4	35	TS	24.1			Neutral	260 R/W
Not Named	Sep 03, 1940	4	45	TS	26.6			El Nino	260 R/W
Not Named	Oct 17, 1943	9	35	TS	34.2		E	Neutral	260 R/W
Not Named	Aug 29, 1949	2	35	TS	33.9		E	La Nina	260 R/W
Not Named	Feb 05, 1952	1	45	TS	30.5		E	Neutral	400 R
Carol	Sep 08, 1953	4	60	TS	30.6		E	Neutral	400 R
Carol	Sep 01, 1954	3	60	TS	27.0	987	E	La Nina	400 R
Edna	Sep 12, 1954	5	65	SS1	44.8		E	La Nina	260 R/W
Cindy	Jul 12, 1959	4	45	TS	29.4		E	Neutral	400 R
Brenda	Jul 31, 1960	3	35	TS	35.7		E	Neutral	260 R/W
Donna	Sep 13, 1960	5	60	TS	38.5		E	Neutral	260 R/W
Carla	Sep 15, 1961	3	30	TD	36.2		E	Neutral	400 TD
Esther	Sep 26, 1961	5	30	TD	18.5			Neutral	260 TD
Not Named	Sep 15, 1961	6	35	TS	60.6			Neutral	400 R
Ginny	Oct 29, 1963	8	90	SS2	27.1		E	El Nino	400 R
Gerda	Sep 10, 1969	7	95	SS2	45.8	979		El Nino	260 R/W
Doria	Aug 29, 1971	5	35	TS	24.2		E	La Nina	400 R
Carrie	Sep 05, 1972	4	40	TS	8.9	1005	E	El Nino	400 R
David	Sep 07, 1979	4	50	TS	32.3	988	E	Neutral	400 R
Frederic	Sep 14, 1979	6	30	TD	78.7	998	E	Neutral	400 TD
Gloria	Sep 28, 1985	7	50	TS	26.3	986	E	Neutral	260 R/W
Hugo	Sep 23, 1989	8	40	TS	28.0	990	E	Neutral	260 R/W
Bob	Aug 20, 1991	2	50	TS	25.2	987		El Nino	400 R

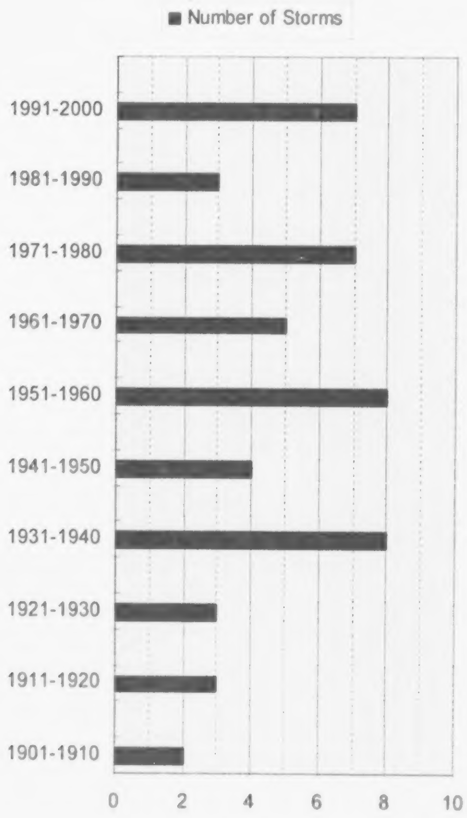
Sherbrooke



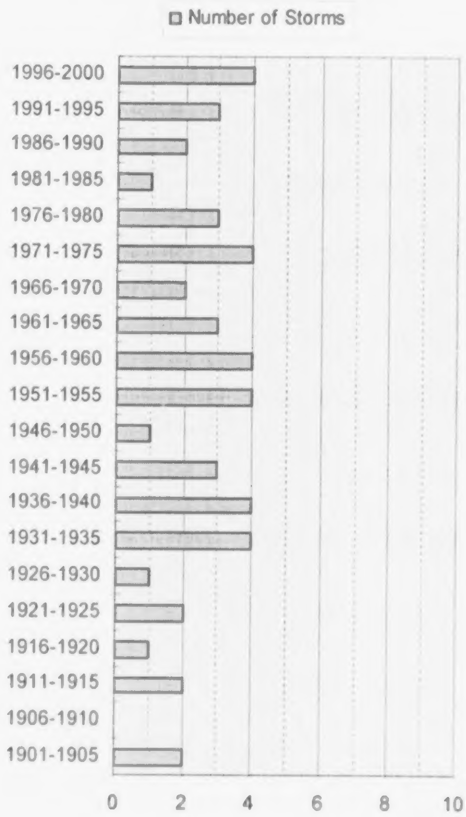


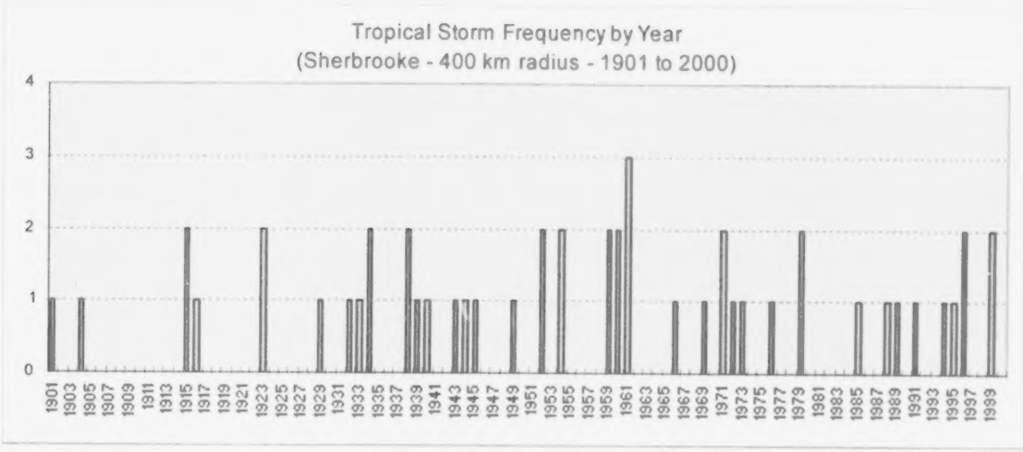
400 km Graphs - Frequency by Time-Periods (1901-2000)

Storm Frequency - Ten Year Periods
(Sherbrooke - 400 km radius)

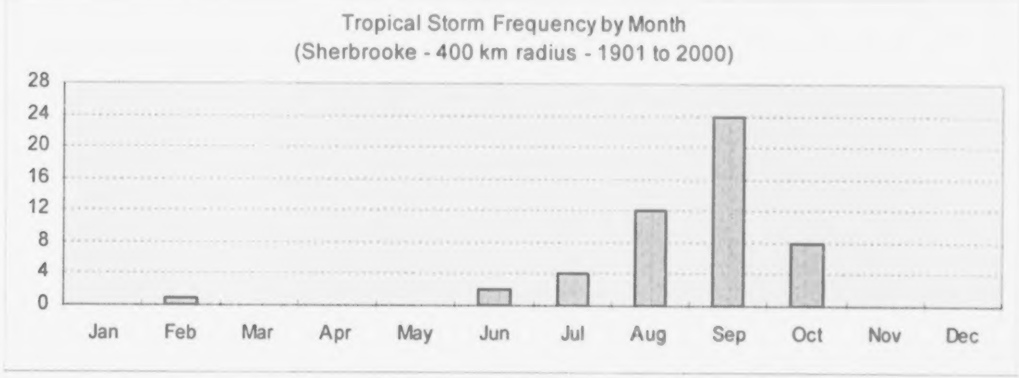


Storm Frequency - Five Year Periods
(Sherbrooke - 400 km radius)

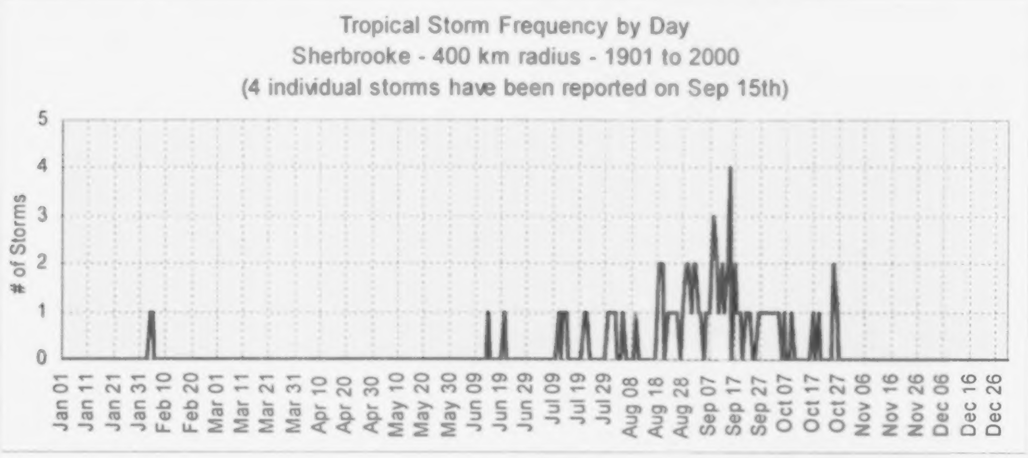




Note: Storms that span months were counted in both months

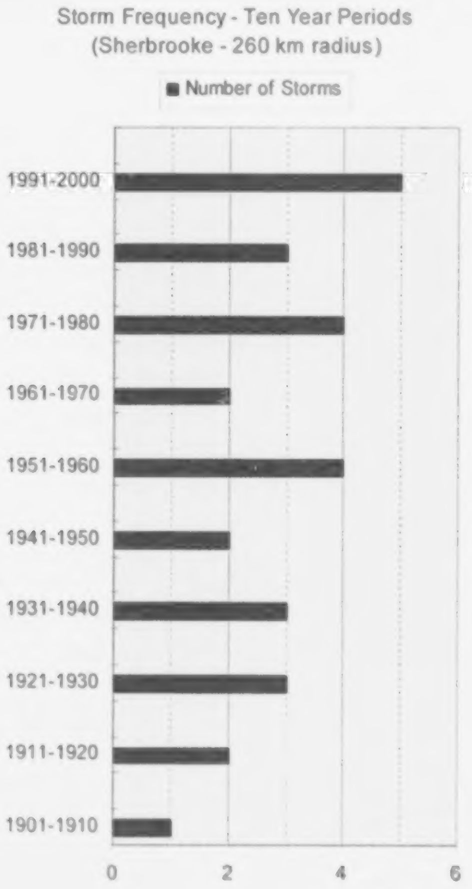


Note: Storms will generally span more than one day. The storm is counted in each day

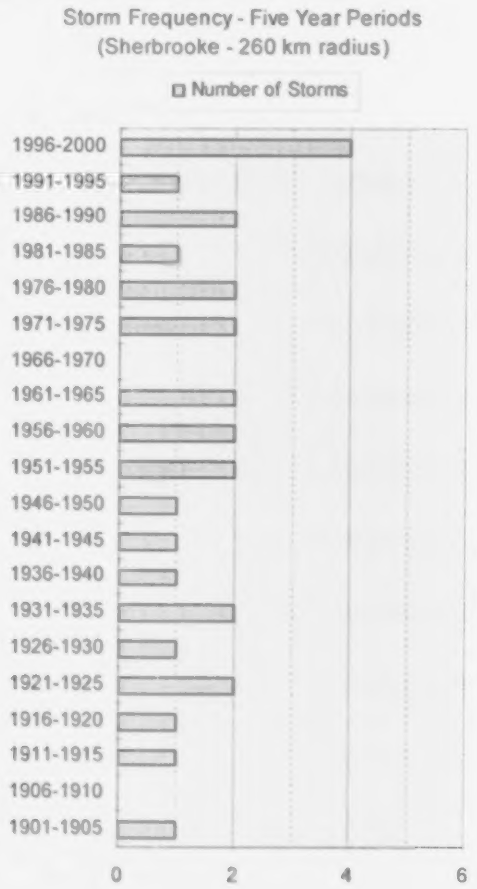


Tropical Storm Frequency by Day
Sherbrooke - 400 km radius - 1901 to 2000
(4 individual storms have been reported on Sep 15th)

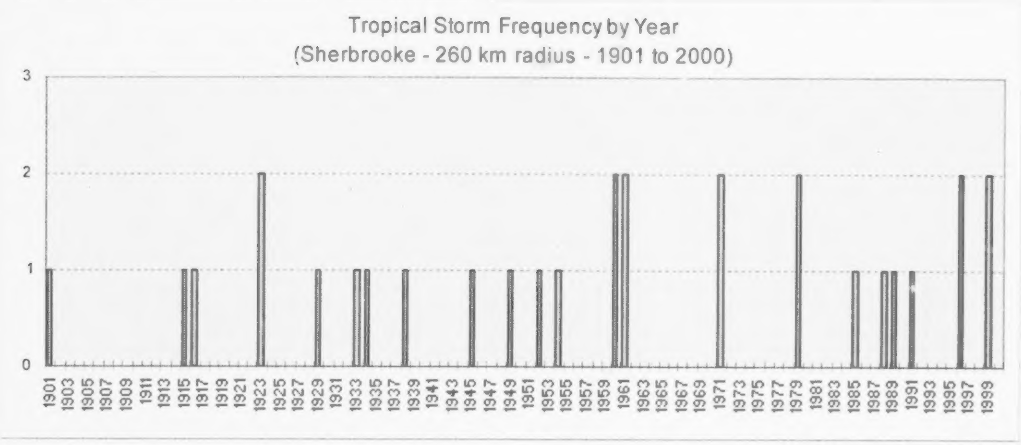
260 km Graphs - Frequency by Time-Periods (1901-2000)



Storm Frequency - Ten Year Periods
(Sherbrooke - 260 km radius)

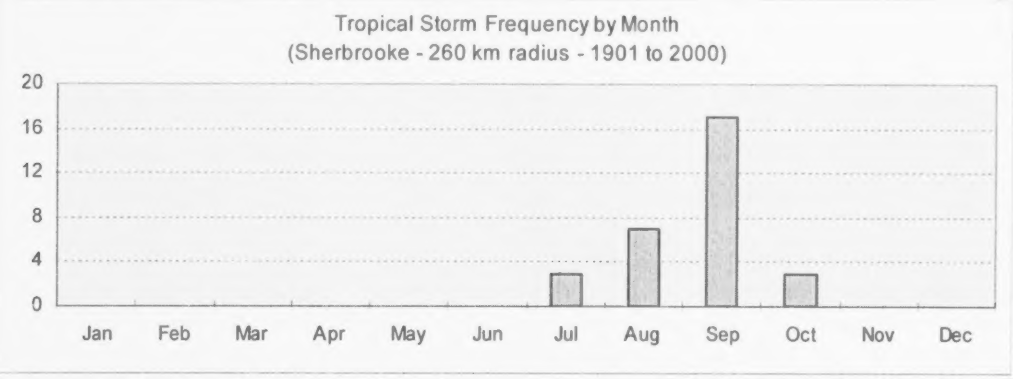


Storm Frequency - Five Year Periods
(Sherbrooke - 260 km radius)



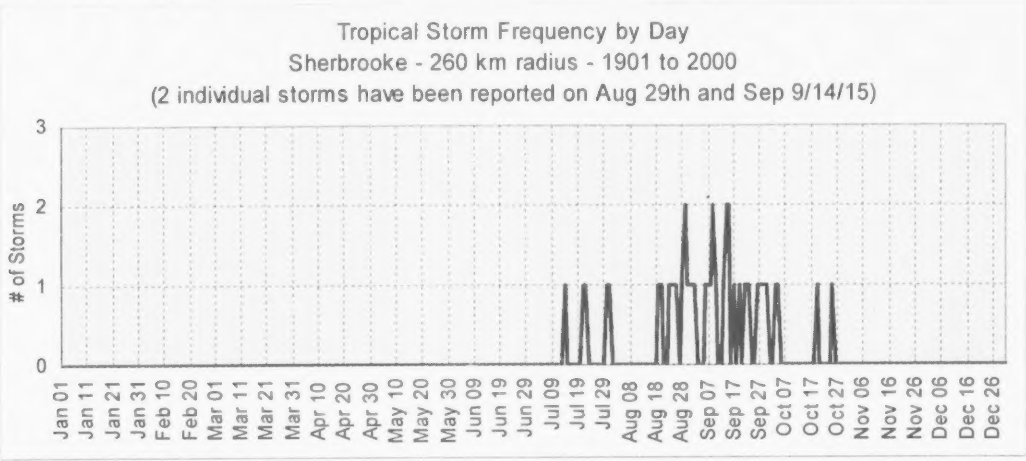
Tropical Storm Frequency by Year
(Sherbrooke - 260 km radius - 1901 to 2000)

Note: Storms that span months were counted in both months



Tropical Storm Frequency by Month
(Sherbrooke - 260 km radius - 1901 to 2000)

Note: Storms will generally span more than one day. The storm is counted in each day



Sherbrooke – Summary Statistics 260 km Radius (gale swath)

100 Yr	**TD**	**TS**	**G**	**S**	**S1**	**S2**	**S3**	**S4**	**S5**	**H**	**<H**	**ALL**	**Sys-Spd**
#	10	13	11	2	3	3	0	0	0	6	23	29	27.9
Return	10	7.7	9.1	50	33.3	33.3	NA	NA	NA	16.7	4.3	3.4	
50 Yr	**TD**	**TS**	**G**	**S**	**S1**	**S2**	**S3**	**S4**	**S5**	**H**	**<H**	**ALL**	**Sys-Spd**
#	5	9	7	2	2	2	0	0	0	4	14	18	30.6
Return	10	5.6	7.1	25	25	25	NA	NA	NA	12.5	3.6	2.8	

Sherbrooke – Summary Statistics 400 km Radius (trace precipitation swath)

100 Yr	**TD**	**TS**	**G**	**S**	**S1**	**S2**	**S3**	**S4**	**S5**	**H**	**<H**	**ALL**	**Sys-Spd**
#	14	25	17	8	6	4	1	0	0	11	39	50	26.6
Return	7.1	4	5.9	12.5	16.7	25	100	NA	NA	9.1	2.6	2	
50 Yr	**TD**	**TS**	**G**	**S**	**S1**	**S2**	**S3**	**S4**	**S5**	**H**	**<H**	**ALL**	**Sys-Spd**
#	8	16	8	8	2	3	1	0	0	6	24	30	27.8
Return	6.3	3.1	6.3	6.3	25	16.7	50	NA	NA	8.3	2.1	1.7	

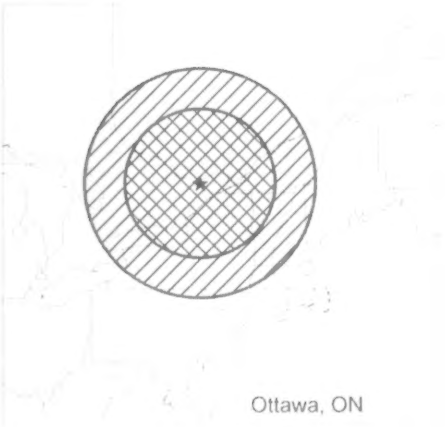
Sherbrooke – Storms That Tracked Within 400 km of Site (R) and within 260 km of the Site (R/W)

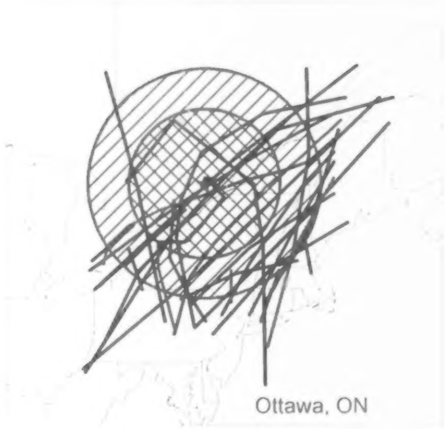
Name	**Date**	**S#**	**MaxWind (kts)**	**SS Scale**	**AvgSysSpd (kts)**	**Pres (mb)**	**Comment**	**ENSO**	**R(km) R/W**
Not Named	Sep 29, 1901	8	25	TD	25.2		E	Neutral	260 TD
Not Named	Sep 15, 1904	2	65	SS1	52.9		E	El Nino	400 R
Not Named	Aug 05, 1915	1	20	TD	10.4			Neutral	400 TD
Not Named	Aug 22, 1915	2	25	TD	15.3		E	Neutral	260 TD
Not Named	Jul 21, 1916	2	75	SS1	22.5			La Nina	260 R/W
Not Named	Oct 25, 1923	4	35	TS	20.1		E	Neutral	260 TD
Not Named	Oct 19, 1923	5	40	TS	12.4			Neutral	260 R/W
Not Named	Oct 03, 1929	2	30	TD	22.5		E	El Nino	260 TD
Not Named	Sep 17, 1932	5	35	TS	25.1		E	Neutral	400 R
Not Named	Aug 24, 1933	8	40	TS	10.2			Neutral	260 R/W
Not Named	Jun 20, 1934	2	40	TS	21.2		E	Neutral	400 R
Not Named	Sep 09, 1934	6	45	TS	19.1		E	Neutral	260 R/W
Not Named	Sep 21, 1938	4	85	SS2	31.5	940	E	La Nina	260 R/W
Not Named	Oct 25, 1938	7	35	TS	47.7		E	La Nina	400 R

Name	Date	S#	MaxWind (kts)	SS Scale	AvgSysSpd (kts)	Pres (mb)	Comment	ENSO	R(km) R/W
Not Named	Aug 20, 1939	2	25	TD	10.0			Neutral	400 TD
Not Named	Sep 02, 1940	4	65	SS1	19.0			El Nino	400 R
Not Named	Oct 17, 1943	9	35	TS	34.2		E	Neutral	400 R
Not Named	Sep 15, 1944	7	75	SS1	31.4			La Nina	400 R
Not Named	Sep 19, 1945	9	25	TD	28.6		E	Neutral	260 TD
Not Named	Aug 29, 1949	2	35	TS	39.9	1000		La Nina	260 R/W
Not Named	Feb 04, 1952	1	50	TS	30.9		E	Neutral	400 R
Able	Sep 01, 1952	2	30	TD	13.3			Neutral	260 TD
Carol	Aug 31, 1954	3	85	SS2	29.5			La Nina	260 R/W
Edna	Sep 11, 1954	5	80	SS1	45.8			La Nina	400 R
Cindy	Jul 11, 1959	4	50	TS	30.2			Neutral	400 R
Gracie	Oct 01, 1959	8	30	TD	25.0		E	Neutral	400 TD
Brenda	Jul 30, 1960	3	45	TS	31.5			Neutral	260 R/W
Donna	Sep 12, 1960	5	90	SS2	37.3			Neutral	260 R/W
Esther	Sep 26, 1961	5	40	TS	20.9	996		Neutral	260 R/W
Not Named	Sep 15, 1961	6	35	TS	51.4			Neutral	260 R/W
Frances	Oct 09, 1961	7	50	TS	11.0			Neutral	400 R
Alma	Jun 14, 1966	1	40	TS	15.2		E	Neutral	400 R
Gerda	Sep 09, 1969	7	110	SS3	44.6	979		El Nino	400 R
Doria	Aug 28, 1971	5	45	TS	26.4	997		La Nina	260 R/W
Heidi	Sep 14, 1971	9	50	TS	19.5			La Nina	260 R/W
Carrie	Sep 04, 1972	4	55	TS	15.9	992	E	El Nino	400 R
Alfa	Aug 01, 1973	2	25	TD	13.3	1007	S	La Nina	400 TD
Belle	Aug 10, 1976	3	60	TS	17.1	983		El Nino	400 R
David	Sep 07, 1979	4	45	TS	29.8	991	E	Neutral	260 R/W
Frederic	Sep 14, 1979	6	30	TD	78.7	998	E	Neutral	260 TD
Gloria	Sep 27, 1985	7	75	SS1	35.7	964		Neutral	260 R/W
Chris	Aug 30, 1988	3	20	TD	37.0	1008		La Nina	260 TD
Hugo	Sep 23, 1989	8	40	TS	51.8	990	E	Neutral	260 R/W
Bob	Aug 19, 1991	2	85	SS2	23.5	964		El Nino	260 R/W
Beryl	Aug 18, 1994	2	15	TD	14.7	1010		Neutral	400 TD
Opal	Oct 06, 1995	15	35	TS	18.2	997	E	Neutral	400 R
Bertha	Jul 13, 1996	2	60	TS	28.3	994		Neutral	260 R/W
Fran	Sep 08, 1996	6	25	TD	11.7	1001		Neutral	260 TD
Dennis	Sep 08, 1999	4	20	TD	8.9	1006	E	La Nina	260 TD
Floyd	Sep 17, 1999	6	50	TS	15.4	980		La Nina	260 R/W

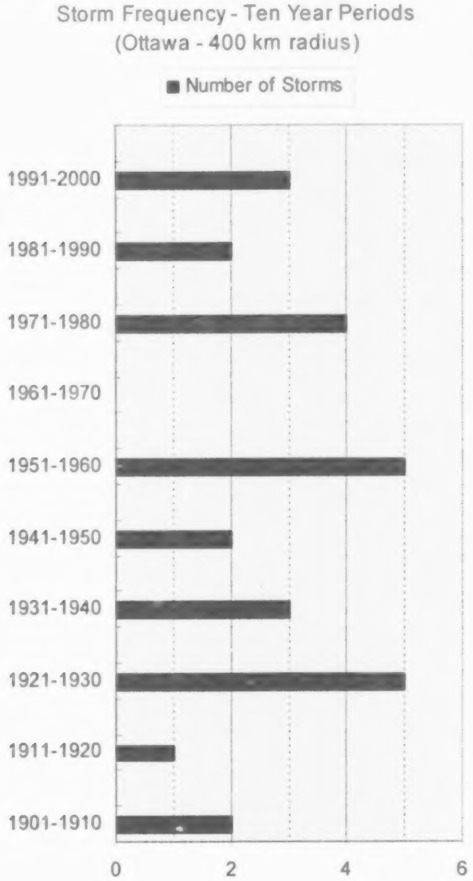
Ontario

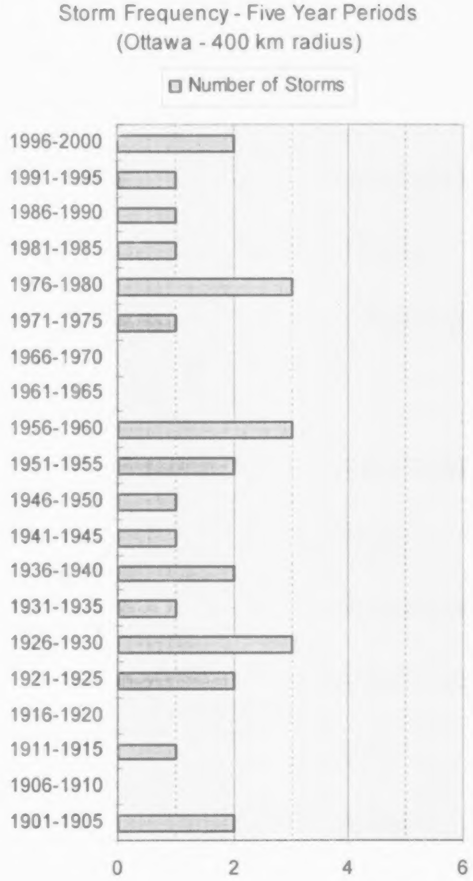
Ottawa

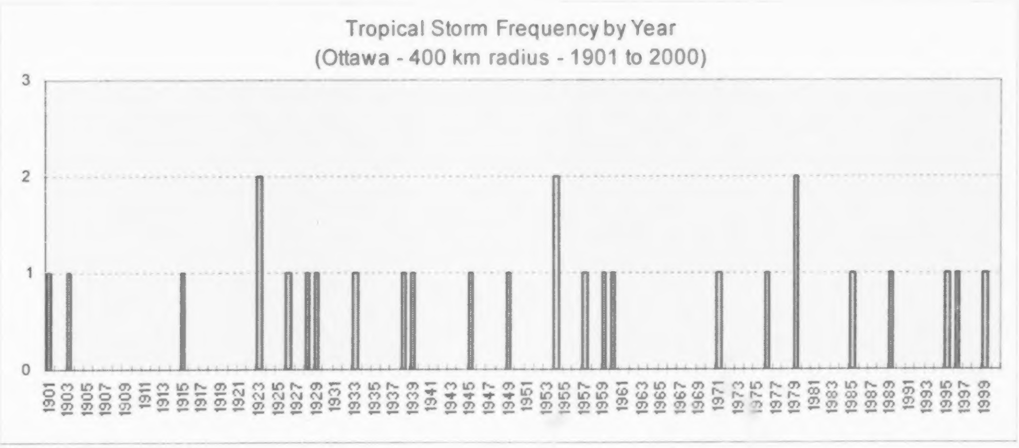




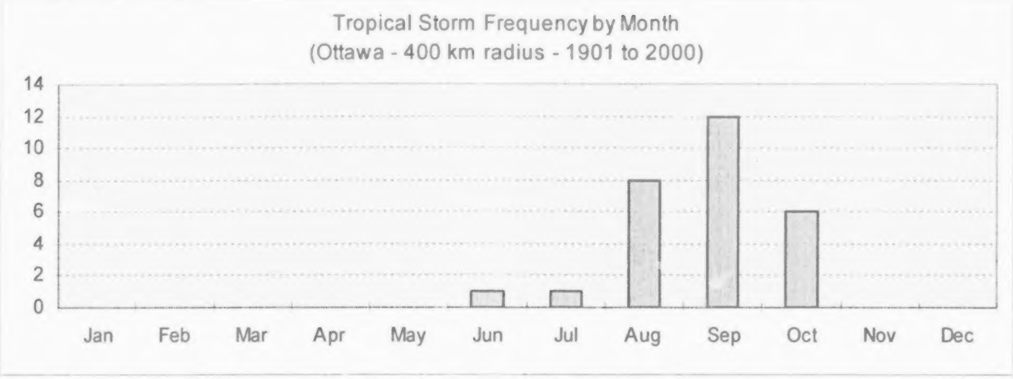
400 km Graphs - Frequency by Time-Periods (1901-2000)



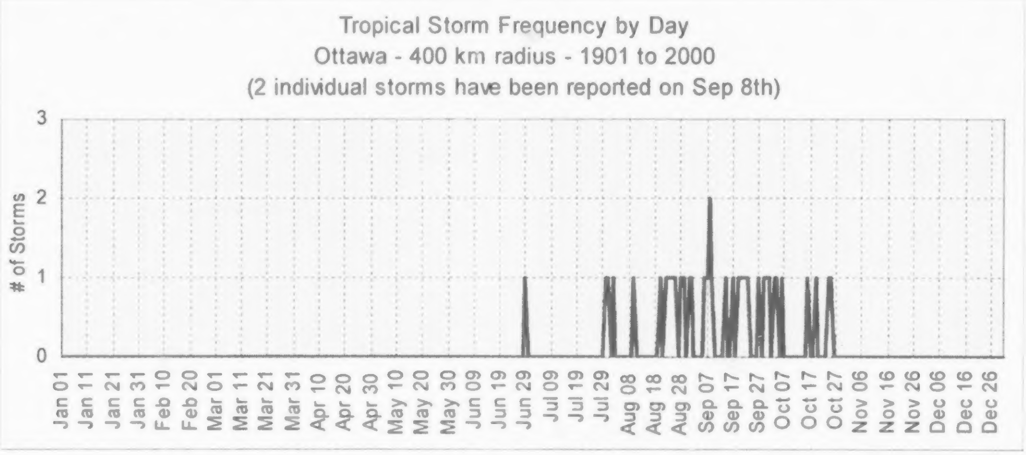




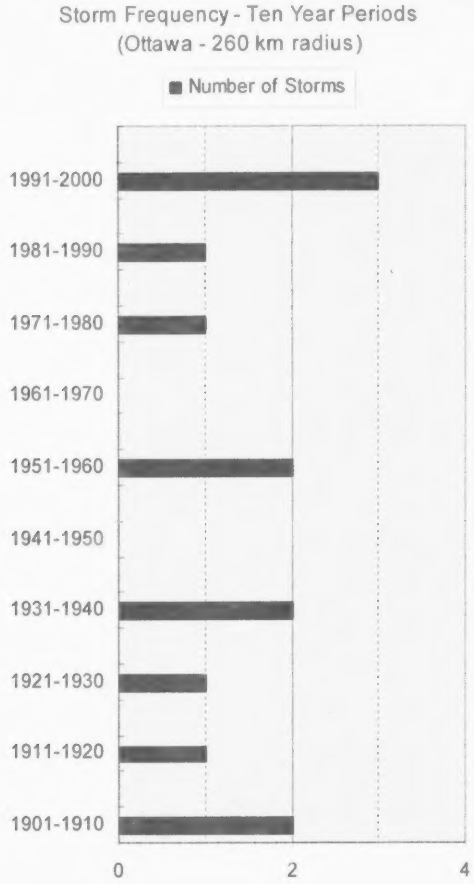
Note: Storms that span months were counted in both months

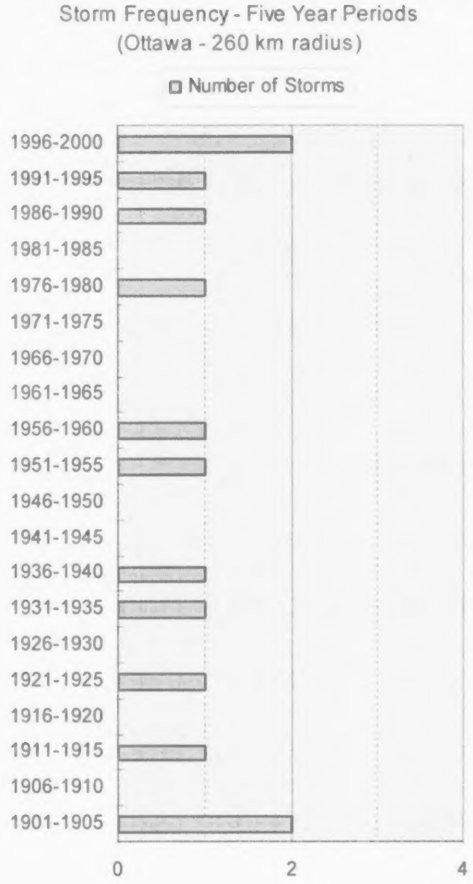


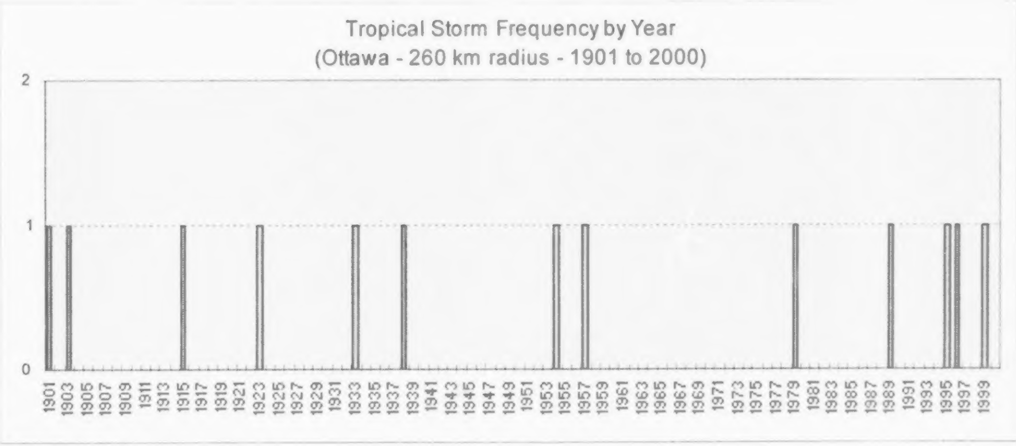
Note: Storms will generally span more than one day. The storm is counted in each day



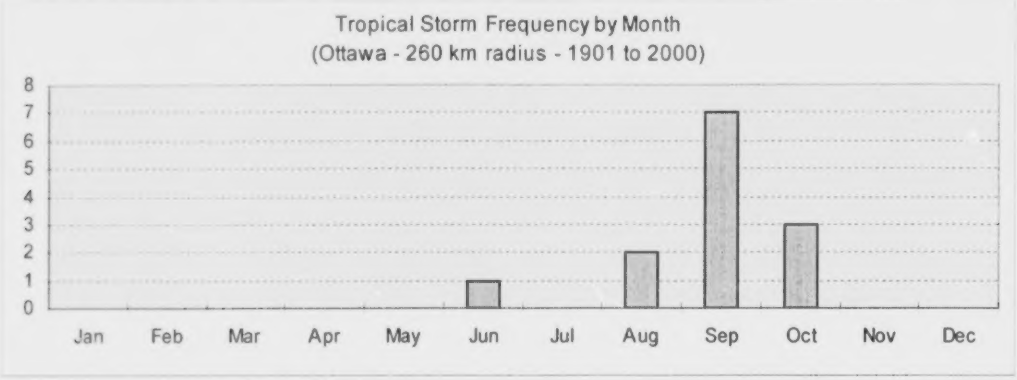
260 km Graphs - Frequency by Time-Periods (1901-2000)


Storm Frequency - Ten Year Periods (Ottawa - 260 km radius)

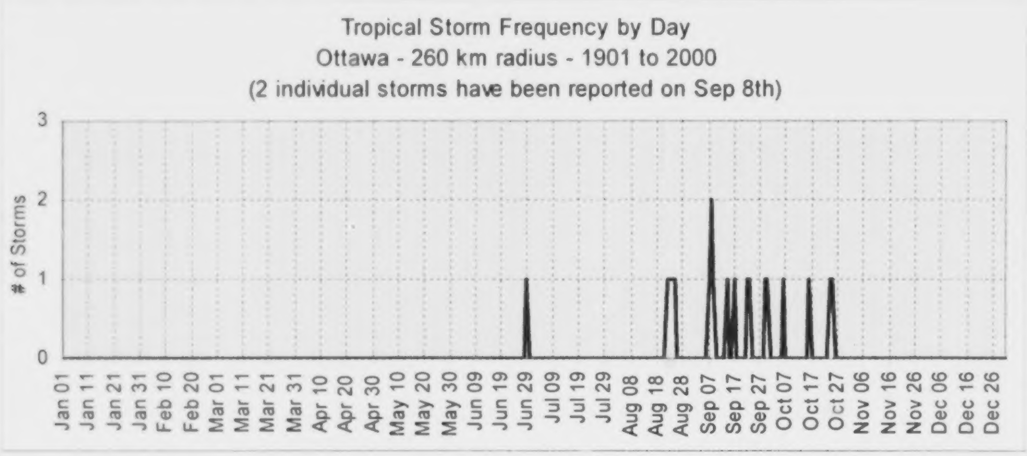

Storm Frequency - Five Year Periods (Ottawa - 260 km radius)


Tropical Storm Frequency by Year (Ottawa - 260 km radius - 1901 to 2000)

Note: Storms that span months were counted in both months



Note: Storms will generally span more than one day. The storm is counted in each day



Ottawa – Summary Statistics 260 km Radius (gale swath)

100 Yr	**TD**	**TS**	**G**	**S**	**S1**	**S2**	**S3**	**S4**	**S5**	**H**	**<H**	**ALL**	**Sys-Spd**
#	5	6	5	1	2	0	0	0	0	2	11	13	28.1
Return	20	16.7	20	100	50	NA	NA	NA	NA	50	9.1	7.7	
50 Yr	**TD**	**TS**	**G**	**S**	**S1**	**S2**	**S3**	**S4**	**S5**	**H**	**<H**	**ALL**	**Sys-Spd**
#	3	3	2	1	1	0	0	0	0	1	6	7	37.4
Return	16.7	16.7	25	50	50	NA	NA	NA	NA	50	8.3	7.1	

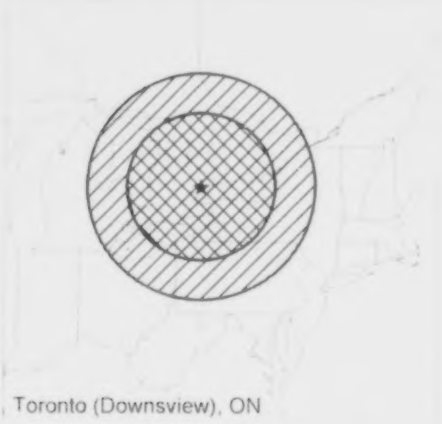
Ottawa – Summary Statistics 400 km Radius (trace precipitation swath)

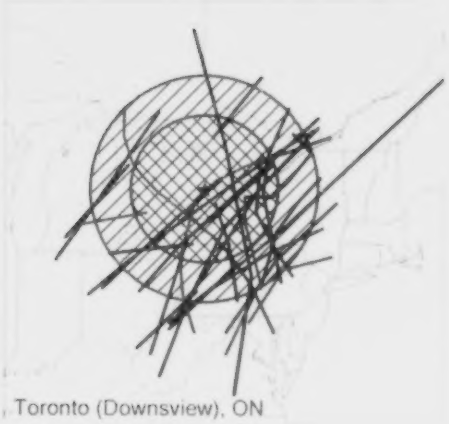
100 Yr	**TD**	**TS**	**G**	**S**	**S1**	**S2**	**S3**	**S4**	**S5**	**H**	**<H**	**ALL**	**Sys-Spd**
#	9	14	11	3	2	2	0	0	0	4	23	27	25.7
Return	11.1	7.1	9.1	33.3	50	50	NA	NA	NA	25	4.3	3.7	
50 Yr	**TD**	**TS**	**G**	**S**	**S1**	**S2**	**S3**	**S4**	**S5**	**H**	**<H**	**ALL**	**Sys-Spd**
#	3	8	6	2	2	1	0	0	0	3	11	14	31.5
Return	16.7	6.3	8.3	25	25	50	NA	NA	NA	16.7	4.5	3.6	

Ottawa – Storms That Tracked Within 400 km of Site (R) and within 260 km of the Site (R/W)

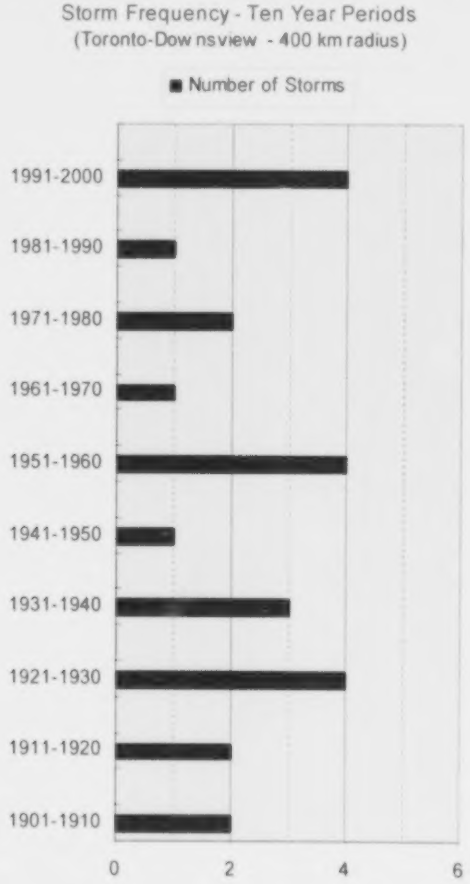
Name	Date	S#	MaxWind (kts)	SS Scale	AvgSysSpd (kts)	Pres (mb)	Comment	ENSO	R(km) R/W
Not Named	Sep 29, 1901	8	25	TD	24.6		E	Neutral	260 TD
Not Named	Sep 17, 1903	4	55	TS	13.8			La Nina	260 R/W
Not Named	Aug 22, 1915	2	30	TD	15.0		E	Neutral	260 TD
Not Named	Oct 24, 1923	4	40	TS	17.3		E	Neutral	260 R/W
Not Named	Oct 19, 1923	5	35	TS	12.2			Neutral	400 R
Not Named	Aug 02, 1926	1	25	TD	17.1		E	Neutral	400 TD
Not Named	Sep 20, 1928	4	35	TS	13.7	1008	E	Neutral	400 R
Not Named	Oct 03, 1929	2	30	TD	15.6		E	El Nino	400 TD
Not Named	Aug 24, 1933	8	45	TS	10.8			Neutral	260 R/W
Not Named	Sep 21, 1938	4	85	SS2	29.6	940	E	La Nina	260 R/W
Not Named	Aug 20, 1939	2	25	TD	10.0			Neutral	400 TD
Not Named	Sep 19, 1945	9	25	TD	28.2		E	Neutral	400 TD
Not Named	Aug 29, 1949	2	35	TS	44.3	1000		La Nina	400 R
Carol	Aug 31, 1954	3	85	SS2	29.5			La Nina	400 R
Hazel	Oct 16, 1954	9	70	SS1	40.1		E	La Nina	260 R/W
Audrey	Jun 29, 1957	2	50	TS	51.6		E	El Nino	260 R/W
Gracie	Oct 01, 1959	8	30	TD	19.9		E	Neutral	400 TD
Brenda	Jul 30, 1960	3	45	TS	29.6			Neutral	400 R
Doria	Aug 28, 1971	5	45	TS	27.5	997		La Nina	400 R
Belle	Aug 10, 1976	3	60	TS	17.1	983		El Nino	400 R
David	Sep 06, 1979	4	40	TS	28.9	991		Neutral	400 R
Frederic	Sep 14, 1979	6	35	TS	63.4	997		Neutral	260 TD
Gloria	Sep 27, 1985	7	75	SS1	41.3	964		Neutral	400 R
Hugo	Sep 23, 1989	8	40	TS	51.8	990	E	Neutral	260 R/W
Opal	Oct 06, 1995	15	40	TS	19.2	991	E	Neutral	260 R/W
Fran	Sep 08, 1996	6	30	TD	10.6	999		Neutral	260 TD
Dennis	Sep 07, 1999	4	20	TD	10.5	1008		La Nina	260 TD

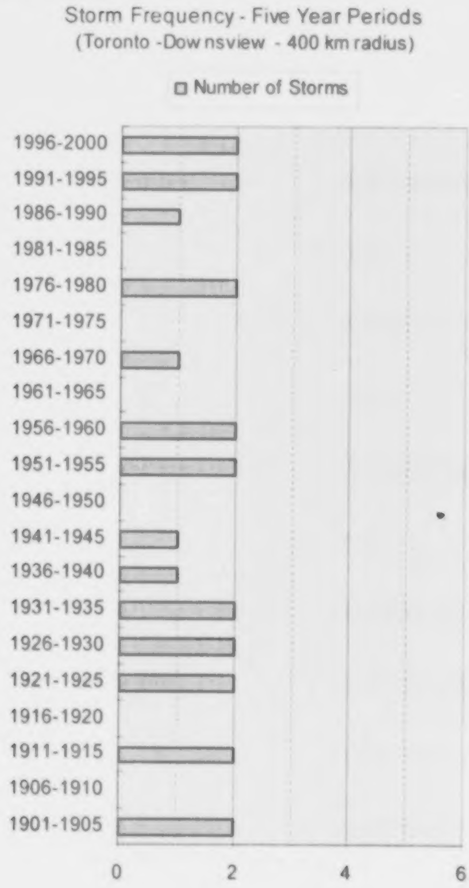
Toronto (Downsview)

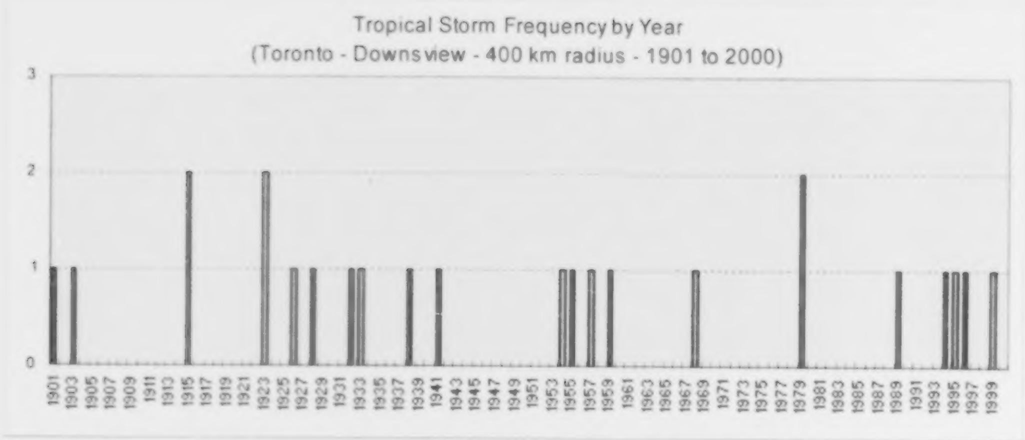

Toronto (Downsview), ON


Toronto (Downsview), ON

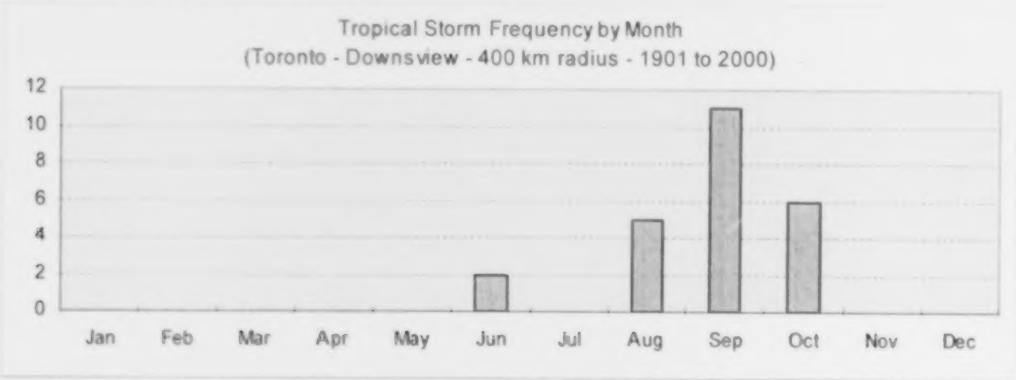
400 km Graphs - Frequency by Time-Periods (1901-2000)



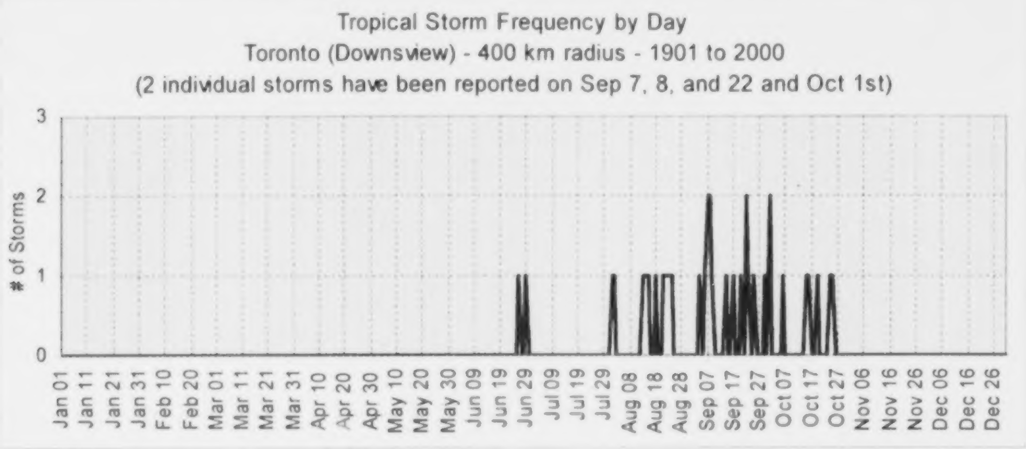




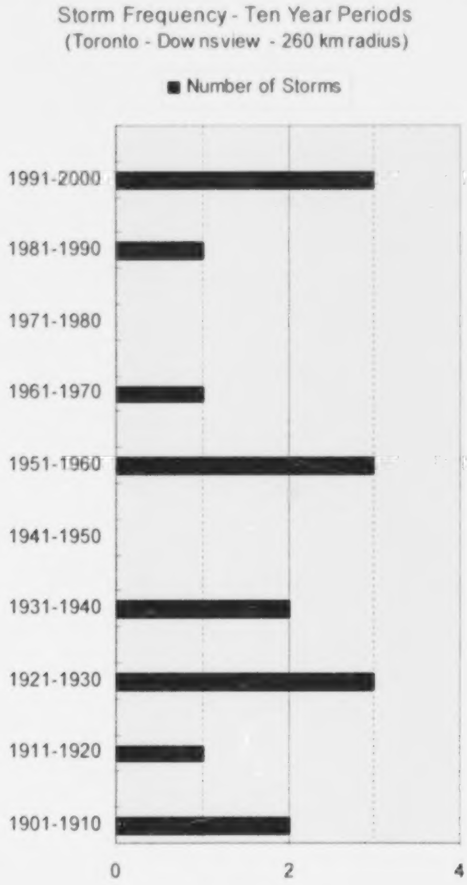
Note: Storms that span months were counted in both months

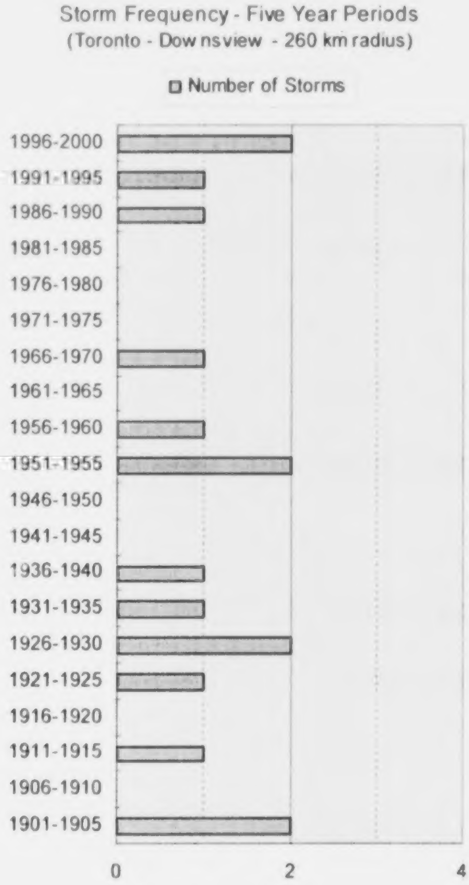


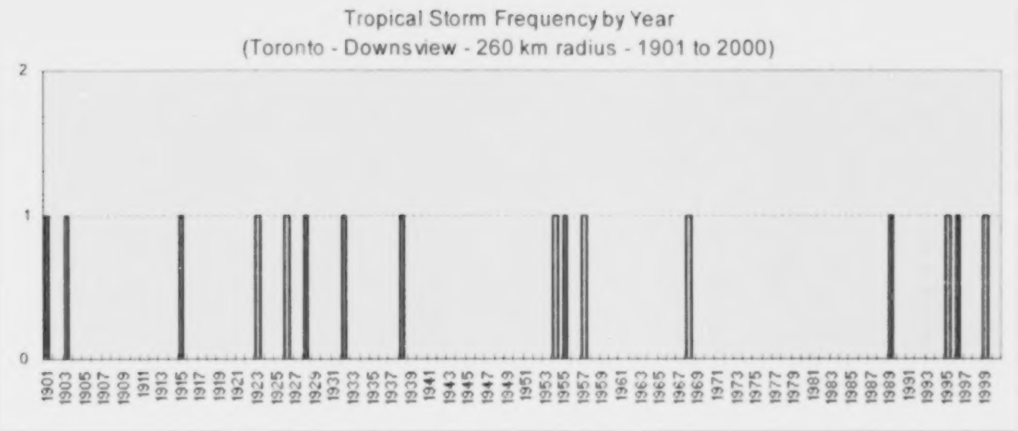
Note: Storms will generally span more than one day. The storm is counted in each day



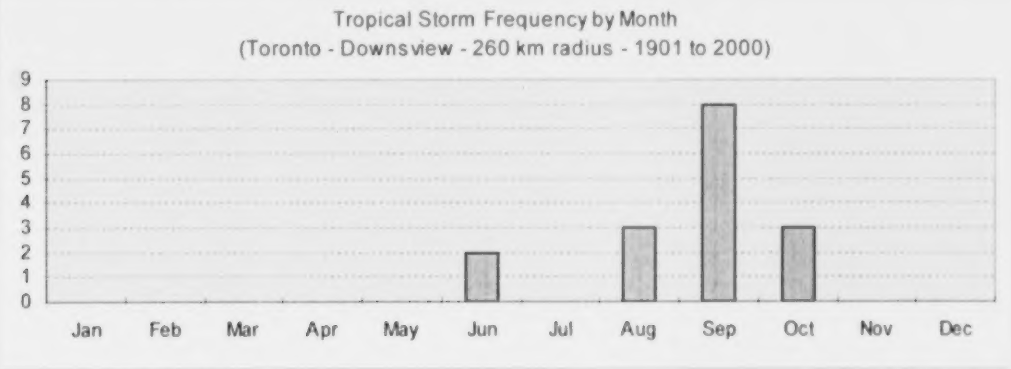
260 km Graphs - Frequency by Time-Periods (1901-2000)



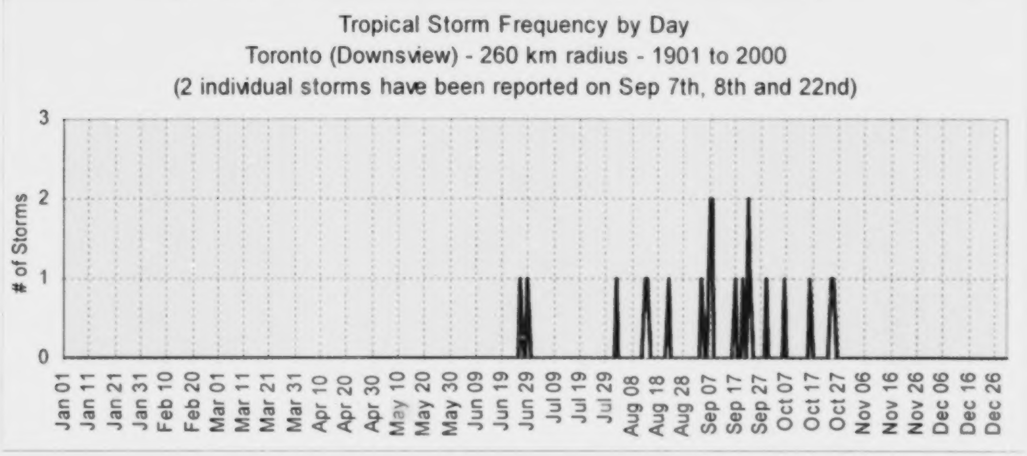



Tropical Storm Frequency by Year
(Toronto - Downsview - 260 km radius - 1901 to 2000)

Note: Storms that span months were counted in both months


Tropical Storm Frequency by Month
(Toronto - Downsview - 260 km radius - 1901 to 2000)

Note: Storms will generally span more than one day. The storm is counted in each day


Tropical Storm Frequency by Day
Toronto (Downsview) - 260 km radius - 1901 to 2000
(2 individual storms have been reported on Sep 7th, 8th and 22nd)

Toronto – Summary Statistics 260 km Radius (gale swath)

100 Yr	TD	TS	G	S	S1	S2	S3	S4	S5	H	<H	ALL	Sys-Spd
#	6	9	8	1	1	0	0	0	0	1	15	16	22.8
Return	16.7	11.1	12.5	100	100	NA	NA	NA	NA	100	6.7	6.3	
50 Yr	**TD**	**TS**	**G**	**S**	**S1**	**S2**	**S3**	**S4**	**S5**	**H**	**<H**	**ALL**	**Sys-Spd**
#	3	4	3	1	1	0	0	0	0	1	7	8	27.4
Return	16.7	12.5	16.7	50	50	NA	NA	NA	NA	50	7.1	6.3	

Toronto – Summary Statistics 400 km Radius (trace precipitation swath)

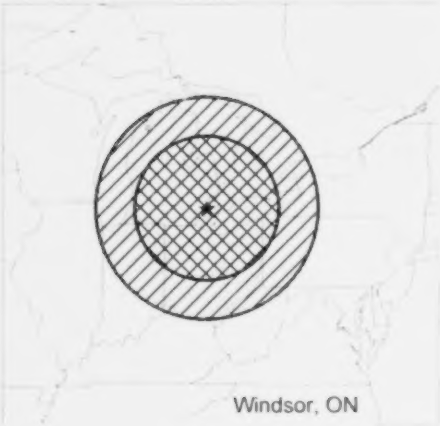
100 Yr	TD	TS	G	S	S1	S2	S3	S4	S5	H	<H	ALL	Sys-Spd
#	9	14	12	2	1	0	0	0	0	1	23	24	24.8
Return	11.1	7.1	8.3	50	100	NA	NA	NA	NA	100	4.3	4.2	
50 Yr	TD	TS	G	S	S1	S2	S3	S4	S5	H	<H	ALL	Sys-Spd
#	**4**	**7**	**6**	**1**	**1**	**0**	**0**	**0**	**0**	**1**	**11**	**12**	**29.3**
Return	12.5	7.1	8.3	50	50	NA	NA	NA	NA	50	4.5	4.2	

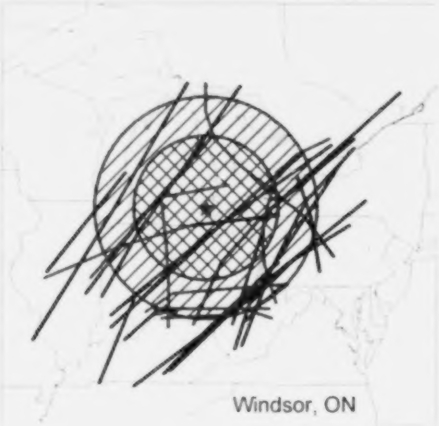
Toronto – Storms That Tracked Within 400 km of Site (R) and within 260 km of the Site (R/W)

Name	Date	S#	MaxWind (kts)	SS Scale	AvgSysSpd (kts)	Pres (mb)	Comment	ENSO	R(km) R/W
Not Named	Sep 29, 1901	8	30	TD	23.8		E	Neutral	260 TD
Not Named	Sep 17, 1903	4	55	TS	13.8			La Nina	260 R/W
Not Named	Aug 21, 1915	2	35	TS	14.8		E	Neutral	260 R/W
Not Named	Oct 01, 1915	5	35	TS	26.9		E	Neutral	400 R
Not Named	Oct 24, 1923	4	40	TS	14.3		E	Neutral	260 R/W
Not Named	Oct 19, 1923	6	25	TD	28.3		E	Neutral	400 TD
Not Named	Aug 01, 1926	1	25	TD	16.9		E	Neutral	260 TD
Not Named	Sep 20, 1928	4	40	TS	16.0		E	Neutral	260 R/W
Not Named	Sep 04, 1932	3	20	TD	22.4			Neutral	260 TD
Not Named	Aug 24, 1933	8	45	TS	13.6			Neutral	400 R
Not Named	Sep 22, 1938	4	35	TS	23.9	987	E	La Nina	260 R/W
Not Named	Sep 25, 1941	2	30	TD	30.3		E	Neutral	400 TD
Hazel	Oct 15, 1954	9	80	SS1	40.9	970	E	La Nina	260 R/W
Connie	Aug 13, 1955	2	45	TS	12.8	982		La Nina	260 R/W

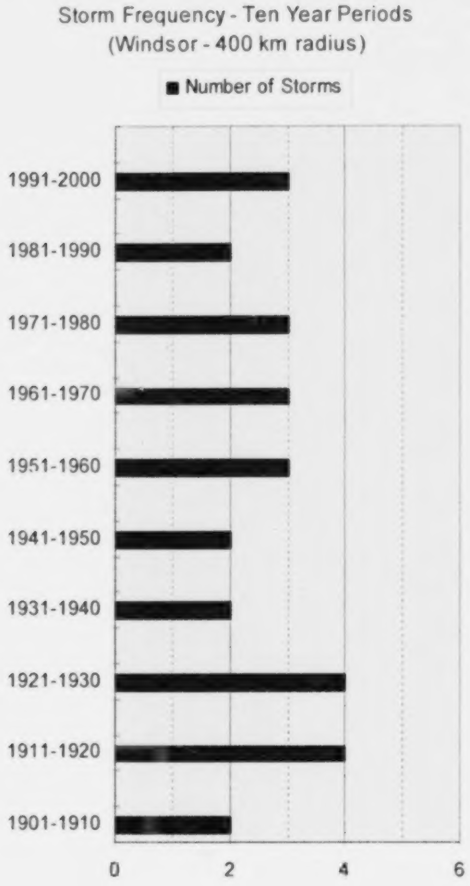
Name	Date	S#	MaxWind (kts)	SS Scale	AvgSysSpd (kts)	Pres (mb)	Comment	ENSO	R(km) R/W
Audrey	Jun 29, 1957	2	50	TS	51.6		E	El Nino	260 R/W
Gracie	Oct 01, 1959	8	35	TS	20.1		E	Neutral	400 R
Candy	Jun 26, 1968	3	25	TD	27.0		E	Neutral	260 TD
David	Sep 06, 1979	4	40	TS	27.4	989		Neutral	400 R
Frederic	Sep 14, 1979	6	35	TS	63.4	997		Neutral	400 R
Hugo	Sep 22, 1989	8	40	TS	47.5	987		Neutral	260 R/W
Beryl	Aug 18, 1994	2	15	TD	18.4	1011		Neutral	400 TD
Opal	Oct 06, 1995	15	40	TS	19.5	989	E	Neutral	260 R/W
Fran	Sep 07, 1996	6	30	TD	10.0	1000		Neutral	260 TD
Dennis	Sep 07, 1999	4	20	TD	12.7	1009		La Nina	260 TD

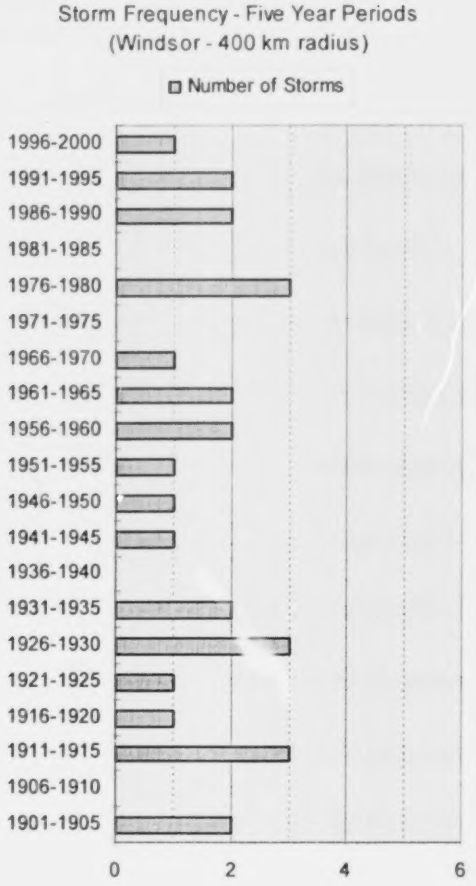
Windsor

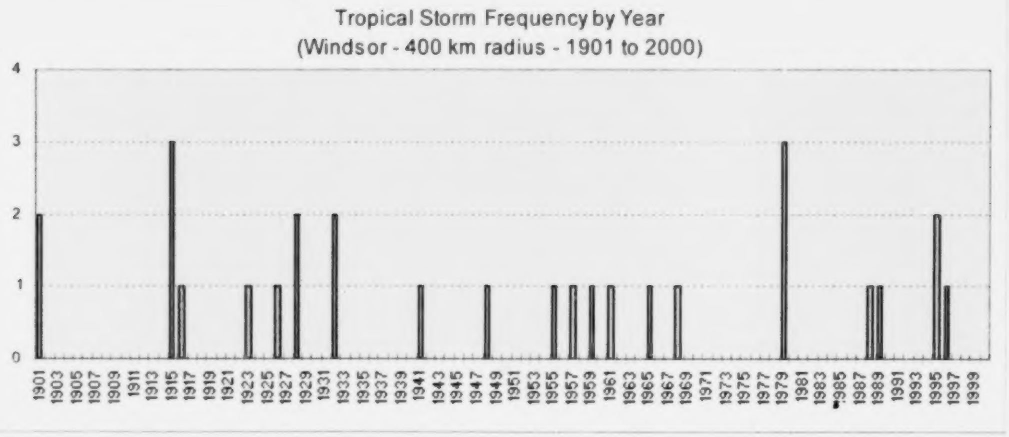




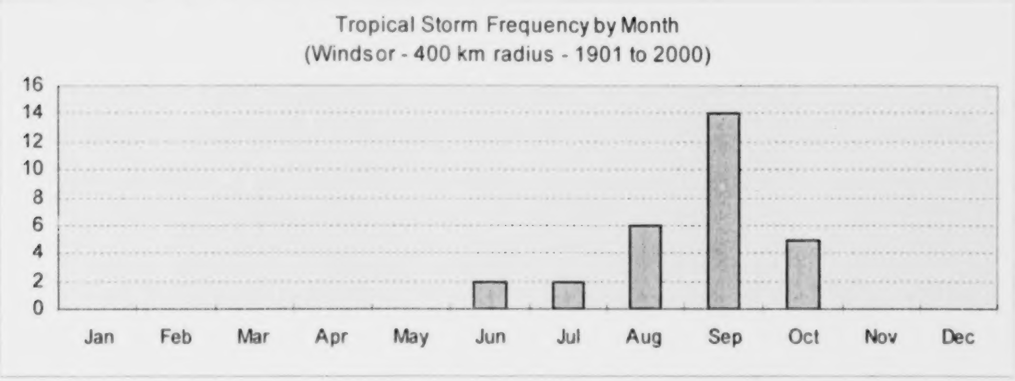
400 km Graphs - Frequency by Time-Periods (1901-2000)



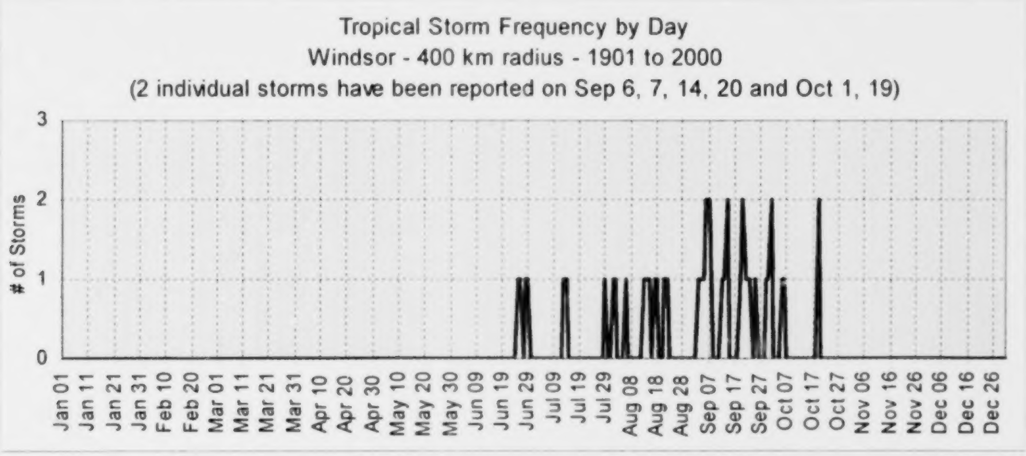




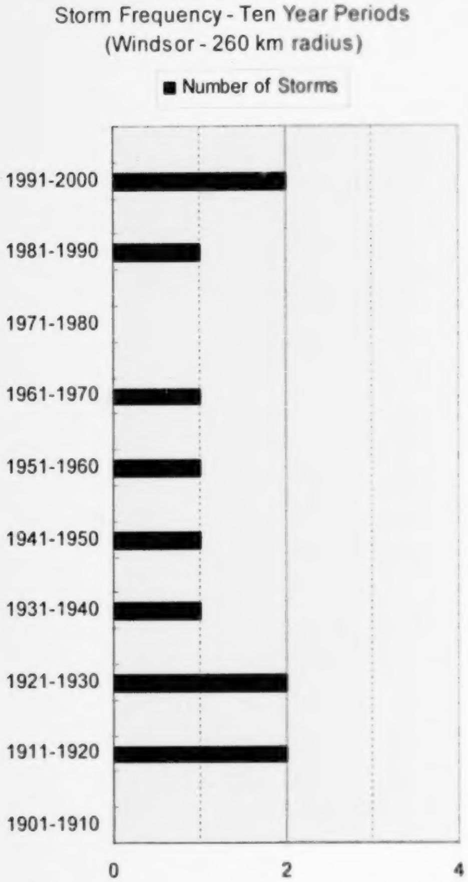
Note: Storms that span months were counted in both months

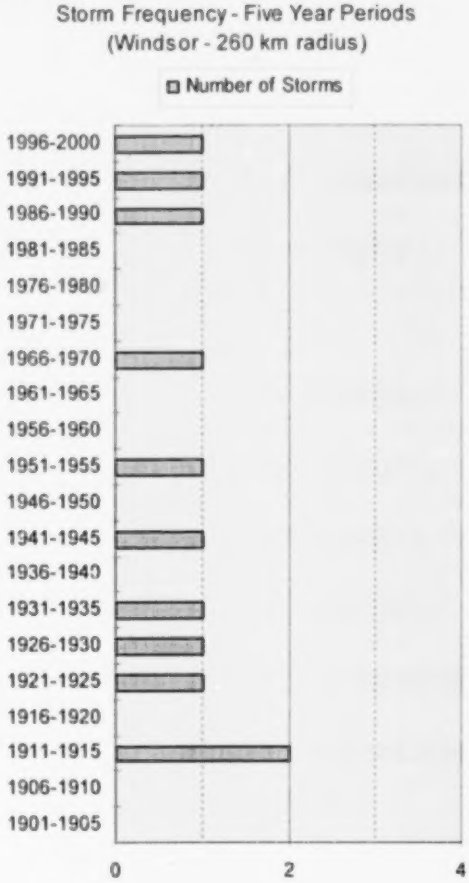


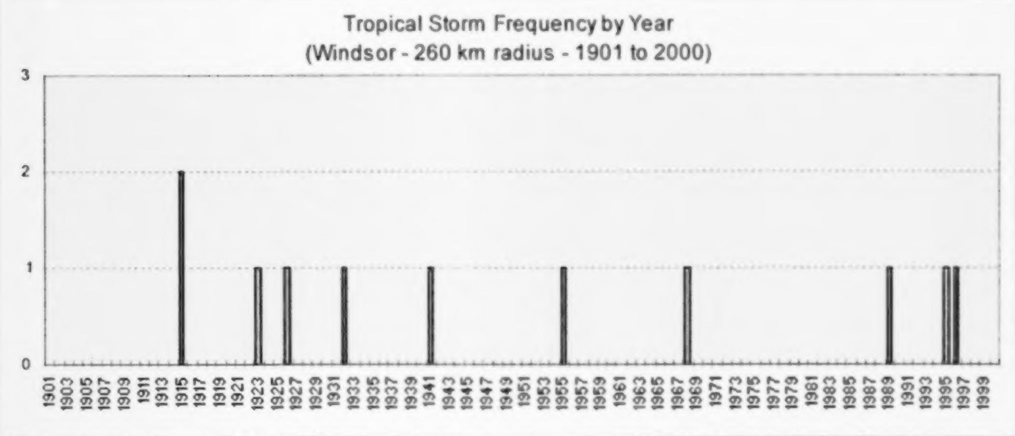
Note: Storms will generally span more than one day. The storm is counted in each day



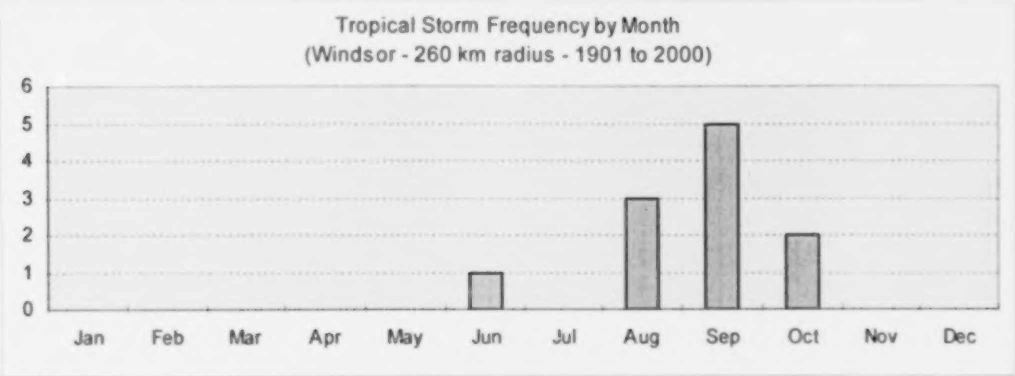
260 km Graphs - Frequency by Time-Periods (1901-2000)


Storm Frequency - Ten Year Periods
(Windsor - 260 km radius)

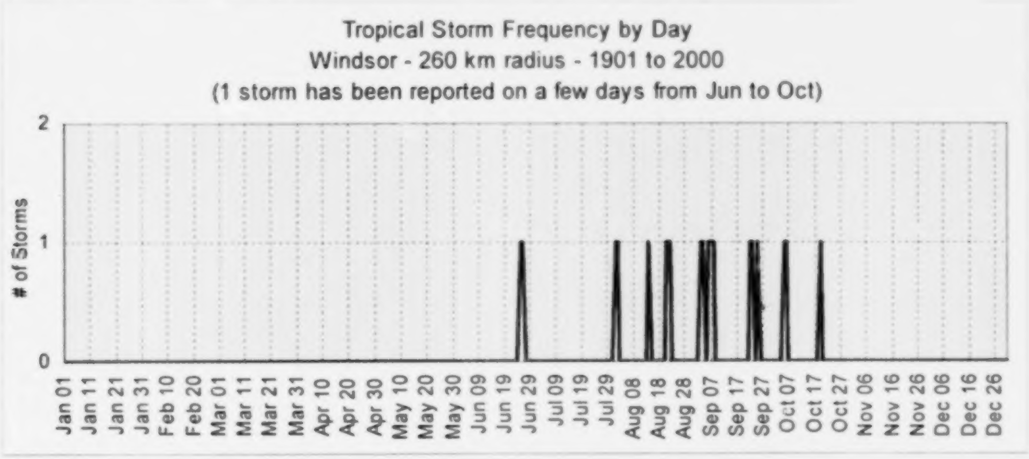

Storm Frequency - Five Year Periods
(Windsor - 260 km radius)


Tropical Storm Frequency by Year
(Windsor - 260 km radius - 1901 to 2000)

Note: Storms that span months were counted in both months



Note: Storms will generally span more than one day. The storm is counted in each day



Windsor – Summary Statistics 260 km Radius (gale swath)

100 Yr	**TD**	**TS**	**G**	**S**	**S1**	**S2**	**S3**	**S4**	**S5**	**H**	**<H**	**ALL**	**Sys-Spd**
#	7	4	4	0	0	0	0	0	0	0	11	11	22.5
Return	14.3	25	25	NA	NA	NA	NA	NA	NA	NA	9.1	9.1	
50 Yr	TD	TS	G	S	S1	S2	S3	S4	S5	H	<H	ALL	Sys-Spd
#	**3**	**2**	**2**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**5**	**5**	**22.8**
Return	16.7	25	25	NA	NA	NA	NA	NA	NA	NA	10	10	

Windsor – Summary Statistics 400 km Radius (trace precipitation swath)

100 Yr	**TD**	**TS**	**G**	**S**	**S1**	**S2**	**S3**	**S4**	**S5**	**H**	**<H**	**ALL**	**Sys-Spd**
#	17	11	10	1	0	0	0	0	0	0	28	28	24.2
Return	5.9	9.1	10	100	NA	NA	NA	NA	NA	NA	3.6	3.6	
50 Yr	**TD**	**TS**	**G**	**S**	**S1**	**S2**	**S3**	**S4**	**S5**	**H**	**<H**	**ALL**	**Sys-Spd**
#	8	6	6	0	0	0	0	0	0	0	14	14	27.5
Return	6.3	8.3	8.3	NA	NA	NA	NA	NA	NA	NA	3.6	3.6	

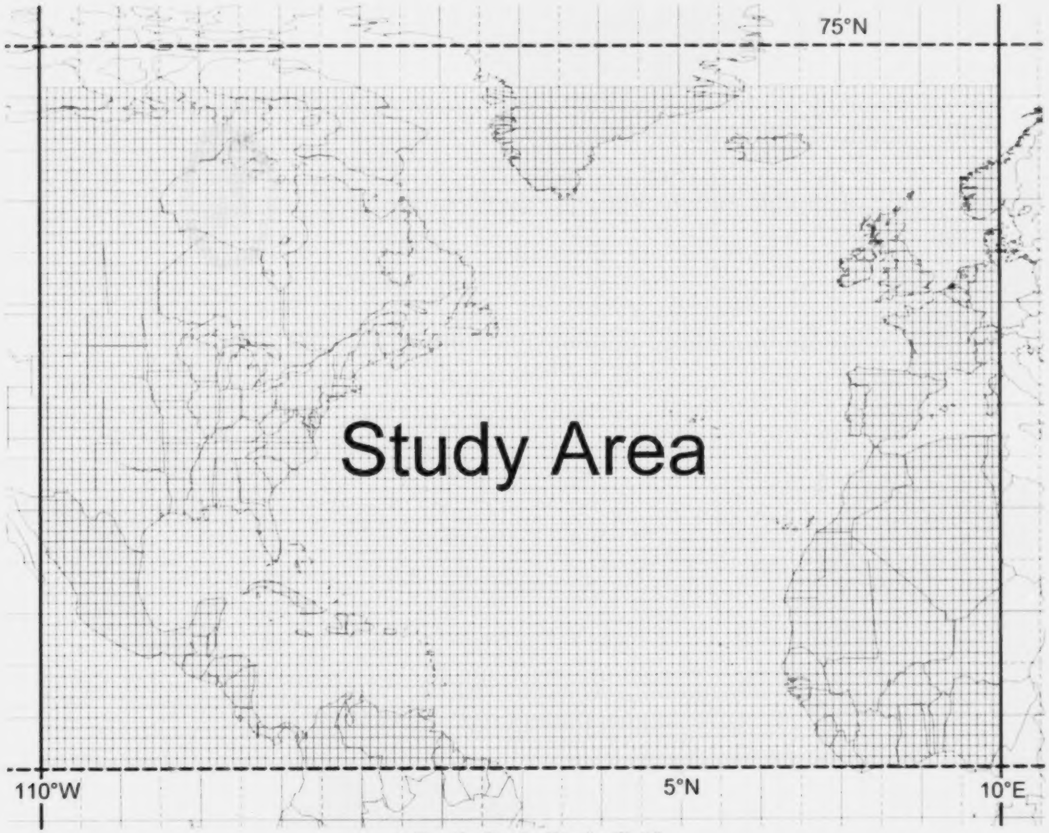
Windsor – Storms That Tracked Within 400 km of Site (R) and within 260 km of the Site (R/W)

Name	**Date**	**S#**	**MaxWind (kts)**	**SS Scale**	**AvgSysSpd (kts)**	**Pres (mb)**	**Comment**	**ENSO**	**R(km) R/W**
Not Named	Aug 18, 1901	4	25	TD	13.5		E	Neutral	400 TD
Not Named	Sep 29, 1901	8	30	TD	24.9		E	Neutral	400 TD
Not Named	Aug 21, 1915	2	35	TS	15.1		E	Neutral	260 R/W
Not Named	Sep 05, 1915	4	25	TD	13.4			Neutral	260 TD
Not Named	Oct 01, 1915	5	35	TS	26.5		E	Neutral	400 R
Not Named	Oct 19, 1916	13	50	TS	31.6			La Nina	400 R
Not Named	Oct 19, 1923	6	25	TD	27.0		E	Neutral	260 TD
Not Named	Aug 01, 1926	1	25	TD	16.8		E	Neutral	260 TD
Not Named	Aug 17, 1928	2	25	TD	8.1			Neutral	400 TD
Not Named	Sep 20, 1928	4	40	TS	16.0		E	Neutral	400 R
Not Named	Sep 03, 1932	3	25	TD	28.4			Neutral	260 TD
Not Named	Sep 21, 1932	6	20	TD	24.8			Neutral	400 TD
Not Named	Sep 25, 1941	2	35	TS	32.1		E	Neutral	260 R/W
Not Named	Sep 06, 1948	5	20	TD	13.8			Neutral	400 TD
Connie	Aug 13, 1955	2	35	TS	12.1	995		La Nina	260 TD
Audrey	Jun 29, 1957	2	40	TS	50.9		E	El Nino	400 R
Gracie	Sep 30, 1959	8	40	TS	19.2		E	Neutral	400 R
Carla	Sep 14, 1961	3	30	TD	48.4		E	Neutral	400 TD
Betsy	Sep 12, 1965	3	20	TD	15.5		E	El Nino	400 TD
Candy	Jun 25, 1968	3	25	TD	26.1			Neutral	260 TD
Bob	Jul 13, 1979	2	25	TD	10.3	1006		Neutral	400 TD
Claudette	Jul 29, 1979	3	15	TD	19.5	1010		Neutral	400 TD
Frederic	Sep 14, 1979	6	35	TS	42.7	996		Neutral	400 R
Gilbert	Sep 19, 1988	8	25	TD	40.8	998	E	La Nina	400 TD
Hugo	Sep 22, 1989	8	40	TS	47.5	987		Neutral	260 R/W
Erin	Aug 06, 1995	5	20	TD	22.7	1005		Neutral	400 TD
Opal	Oct 05, 1995	15	40	TS	20.2	986	E	Neutral	260 R/W
Fran	Sep 07, 1996	6	30	TD	9.0	1000		Neutral	260 TD

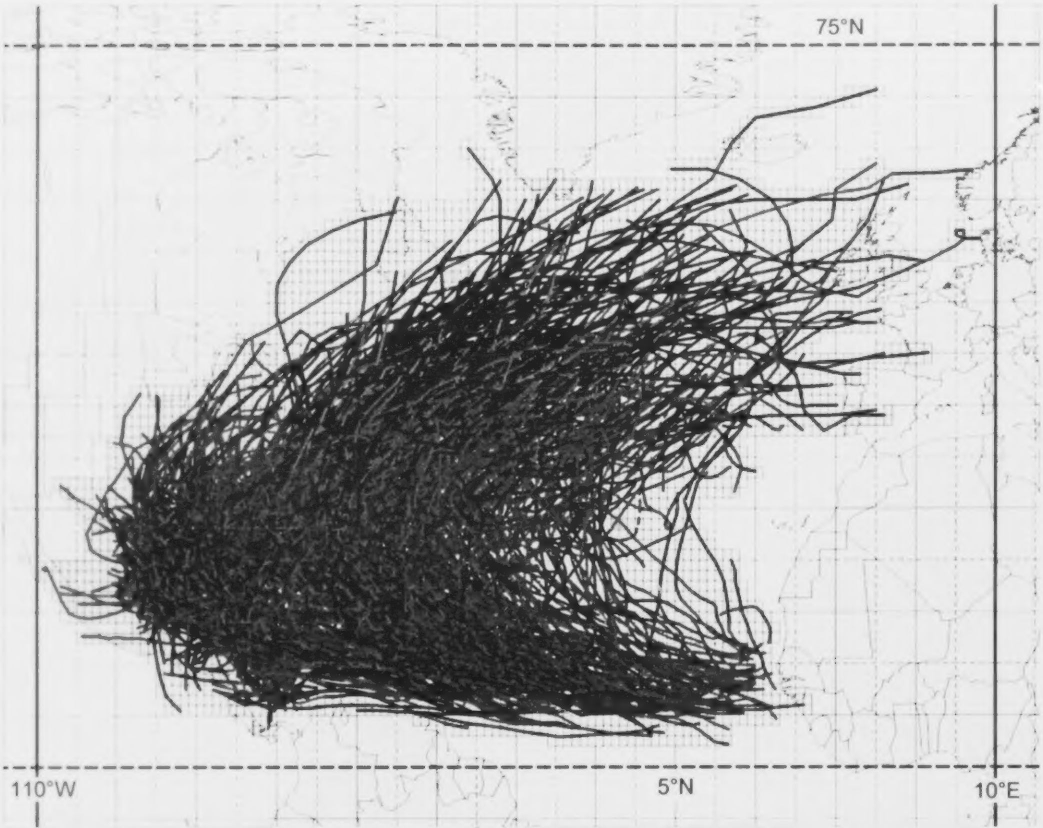
Grid Statistics - 1° Latitude by 1° Longitude Cells

Description

A one degree square grid was built for the Atlantic basin and eastern North America and a geographic interrogation of the U.S. National Hurricane Center's track database was performed within each cell. The original grid was defined from 5°N to 71°N and from 10°E to 110°W and covered all track positions. Many cells were deleted on the edge of the grid – these areas contained no tracks and eliminating them allowed the grid statistics to be calculated more efficiently. See the following two figures for the original 7920 cell grid and the reduced 4364 cell grid.



Atlantic Basin Study Grid



Basin grid plus all 20th century tropical storm tracks

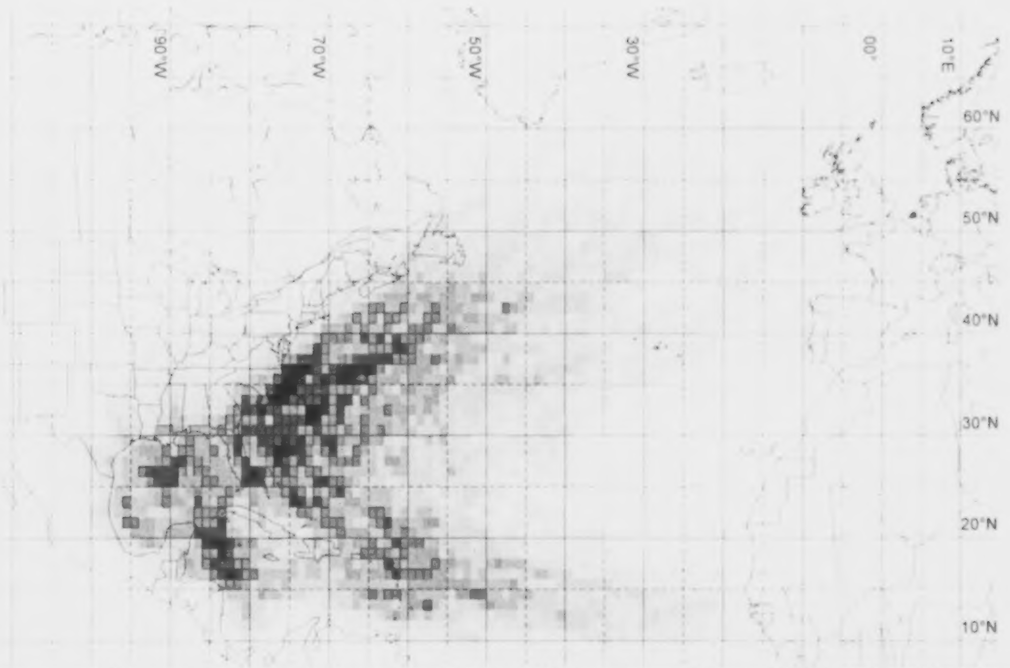
Summary wind statistics were extracted for each cell. Storms were broken down by maximum sustained wind ranges and categorized as tropical depression, tropical storm, gale, storm, or Saffir-Simpson hurricanes levels 1 to 5. A count of all hurricane strength and below hurricane strength storms was done as well as a total of all storms that crossed each cell. In addition, the average system motion or translation speed was calculated in each cell. The average included all storm segments that passed through the cell. For multi-line storms (storms that took more than 6 hours to transit) all line segments for the storm were included in the average.

The resulting numbers allowed thematic mapping to be performed within Mapinfo. Following are some examples with descriptions.

See Appendix IV for detailed cell statistics for the entire North Atlantic basin.

Atlantic Basin

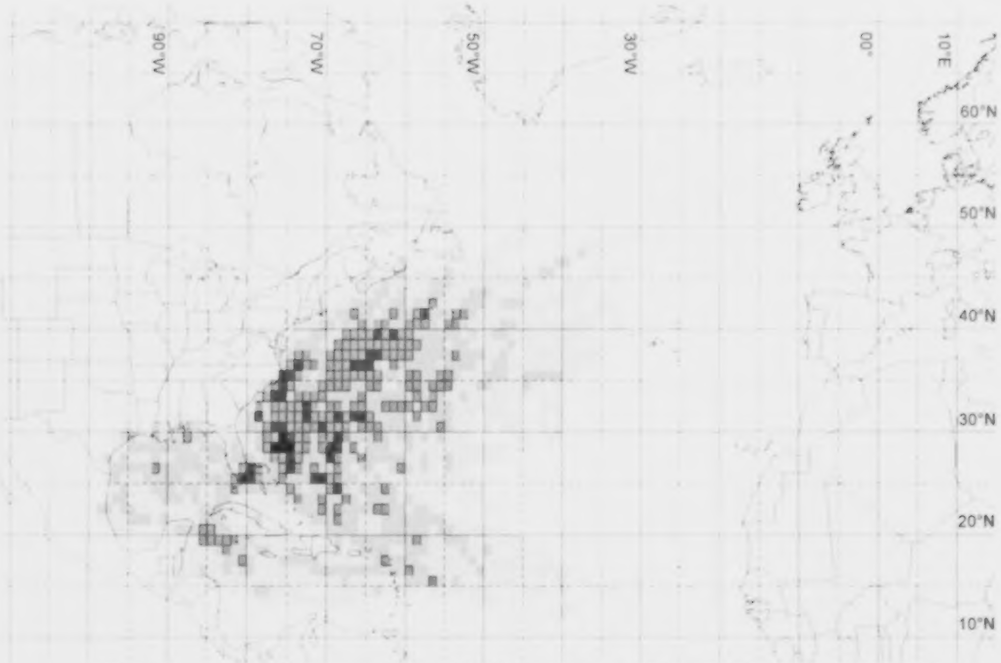
Basin Grid Cell Thematic Maps



Count of all storms regardless of intensity 1901 to 2000 (maximum 56 in cell 36N-37N 73W-74W)

All Tropical Storms
(all intensities)

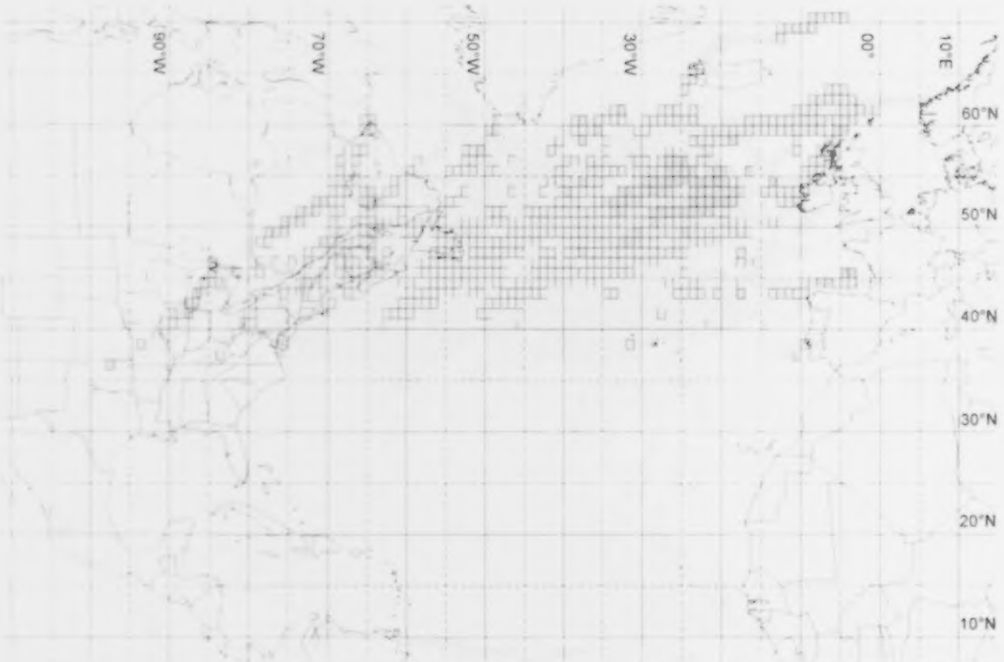
■	50 to 56	(3)
■	45 to 50	(14)
■	40 to 45	(25)
■	35 to 40	(104)
■	30 to 35	(183)
▨	25 to 30	(258)
▨	20 to 25	(297)
□	15 to 20	(401)
□	10 to 15	(502)
	5 to 10	(742)
	1 to 5	(1471)


90°W
70°W
50°W
30°W
10°E
60°N
50°N
40°N
30°N
20°N
10°N

Hurricane strength storms 1901 to 2000 (maximum 28 in cell 28N-29N 75W-76W)

Hurricane
(> 63 knots)

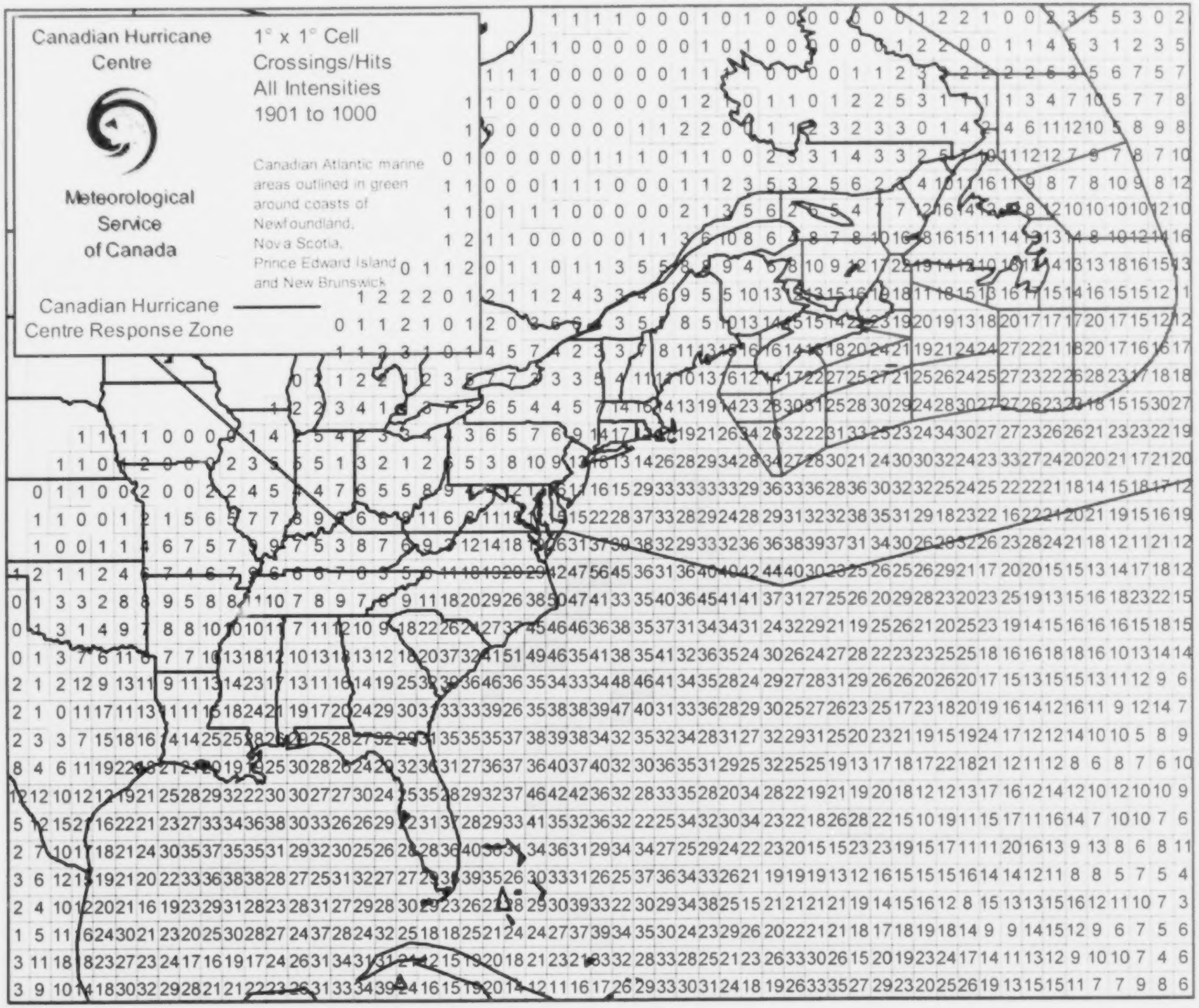
■ 25 to 28 (4)
■ 20 to 25 (36)
▨ 15 to 20 (179)
□ 10 to 15 (445)
5 to 10 (711)
1 to 5 (1127)



Average system or translation speed in knots (maximum 68 knots in cell 54N-55N 25W-26W. Note that there were few storms recorded over Canadian land areas or near the edges of the grid. Therefore average system speeds in those areas are based on a small sample and may not reflect a reasonable value.

Average System
Speed (knots)

▨ 50 to 68 (12)
▨ 40 to 50 (103)
□ 30 to 40 (575)
20 to 30 (951)
10 to 20 (2066)
1 to 10 (293)


Canadian Hurricane Centre
Meteorological Service of Canada
1° x 1° Cell Crossings/Hits
All Intensities
1901 to 1000
Canadian Atlantic marine areas outlined in green around coasts of Newfoundland, Nova Scotia, Prince Edward Island and New Brunswick
Canadian Hurricane Centre Response Zone

← 6,824 km^2

← 8,819 km^2

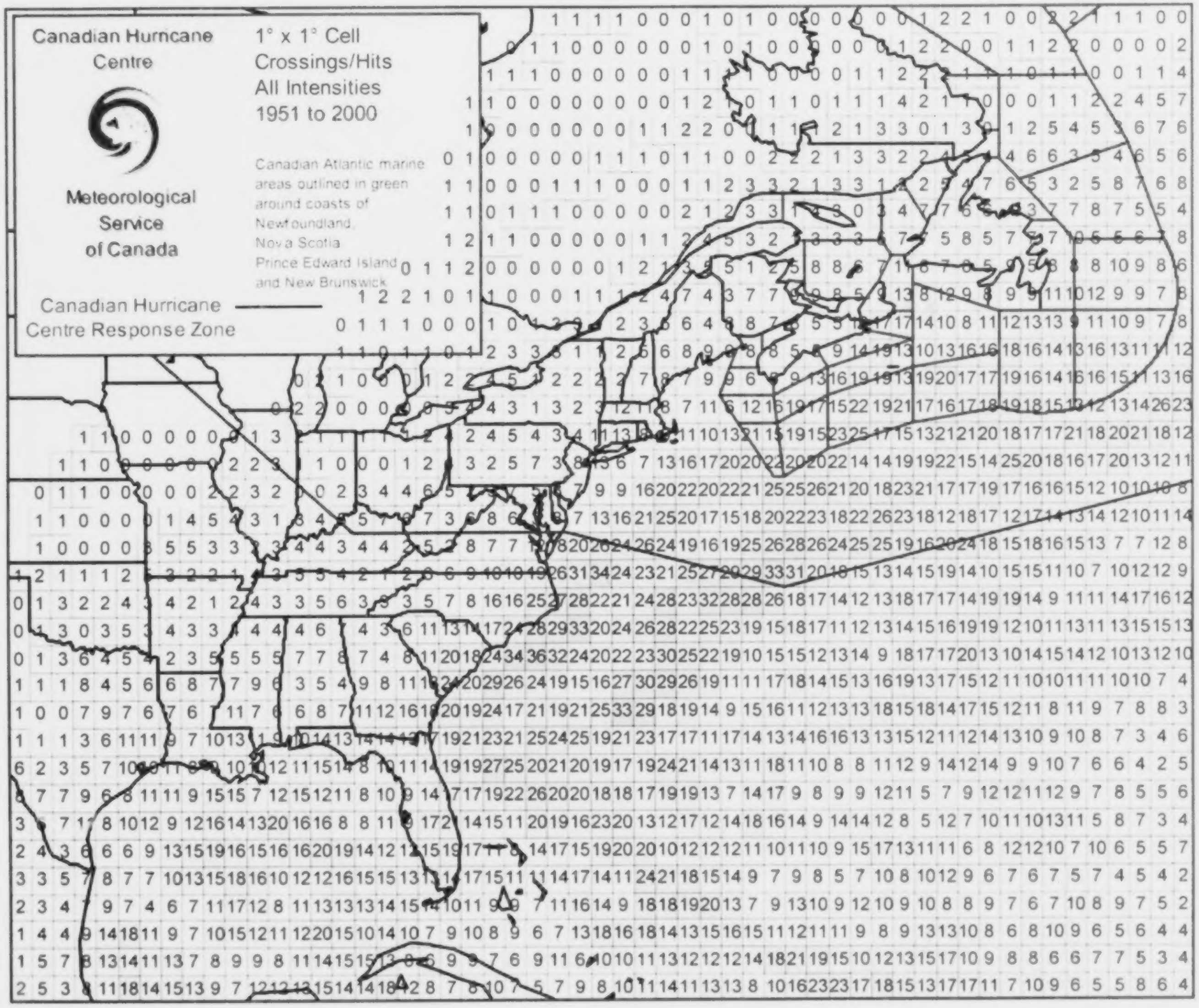
← 10,070 km^2

← 11,500 km^2

100 years
1901-2000

1° x 1° cell areas decrease with increasing latitude. Therefore, strike frequencies are actually more significant on a *per area* basis over northern latitudes.

Ex. a 2 cell over Halifax has about 1.3 times the significance as a 2 over Cuba… equivalent to a 2.6 over Cuba.


Canadian Hurricane Centre
Meteorological Service of Canada
1° x 1° Cell Crossings/Hits All Intensities 1951 to 2000
Canadian Atlantic marine areas outlined in green around coasts of Newfoundland, Nova Scotia, Prince Edward Island and New Brunswick
Canadian Hurricane Centre Response Zone
6,824 km²
8,819 km²
10,070 km²
11,500 km²

50 years
1951-2000

1° x 1° cell areas decrease with increasing latitude. Therefore, strike frequencies are actually more significant on a *per area* basis over northern latitudes.

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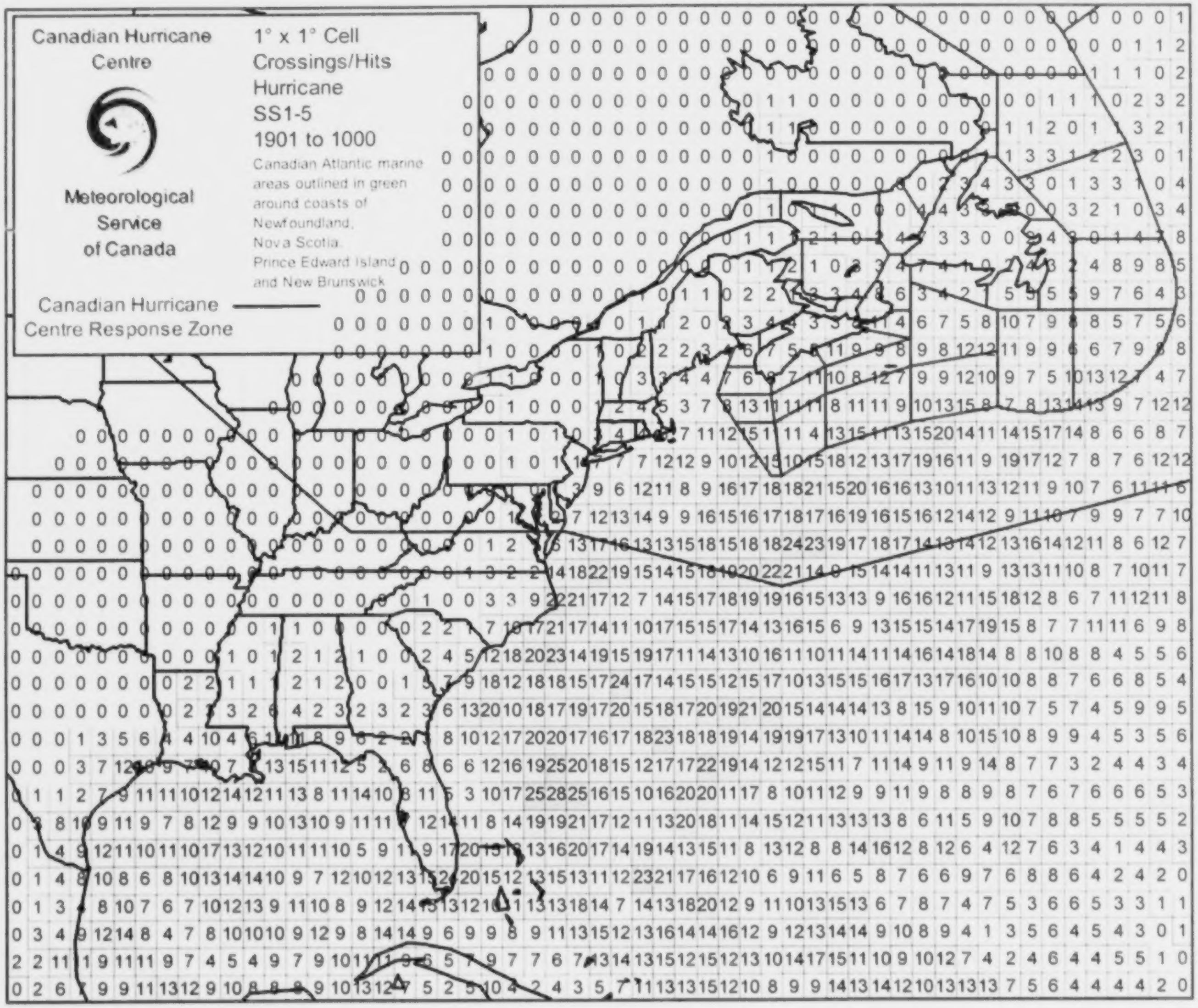
Canadian Hurricane Centre
Meteorological Service of Canada
1° x 1° Cell Crossings/Hits
Hurricane
SS1-5
1901 to 1000
Canadian Atlantic marine areas outlined in green around coasts of Newfoundland, Nova Scotia, Prince Edward Island and New Brunswick
Canadian Hurricane Centre Response Zone

← 6,824 km²

100 years
1901-2000

← 8,819 km²

← 10,070 km²

1° x 1° cell areas decrease with increasing latitude. Therefore, strike frequencies are actually more significant on a *per area* basis over northern latitudes.

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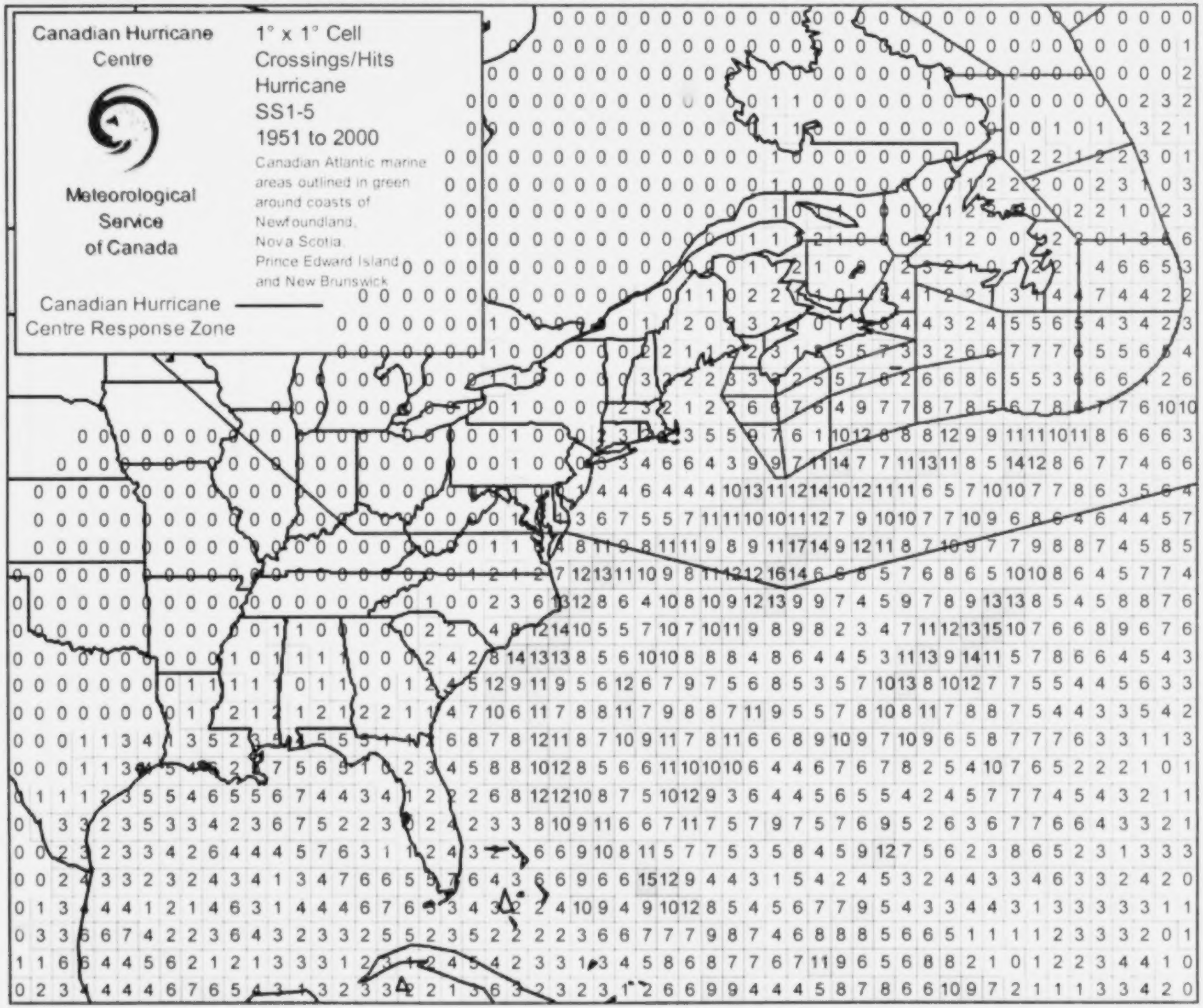
← 11,500 km²


Canadian Hurricane Centre
Meteorological Service of Canada
1° x 1° Cell
Crossings/Hits
Hurricane
SS1-5
1951 to 2000
Canadian Atlantic marine areas outlined in green around coasts of Newfoundland, Nova Scotia, Prince Edward Island and New Brunswick
Canadian Hurricane Centre Response Zone
← 6,824 km²
← 8,819 km²
← 10,070 km²
← 11,500 km²

50 years
1951-2000

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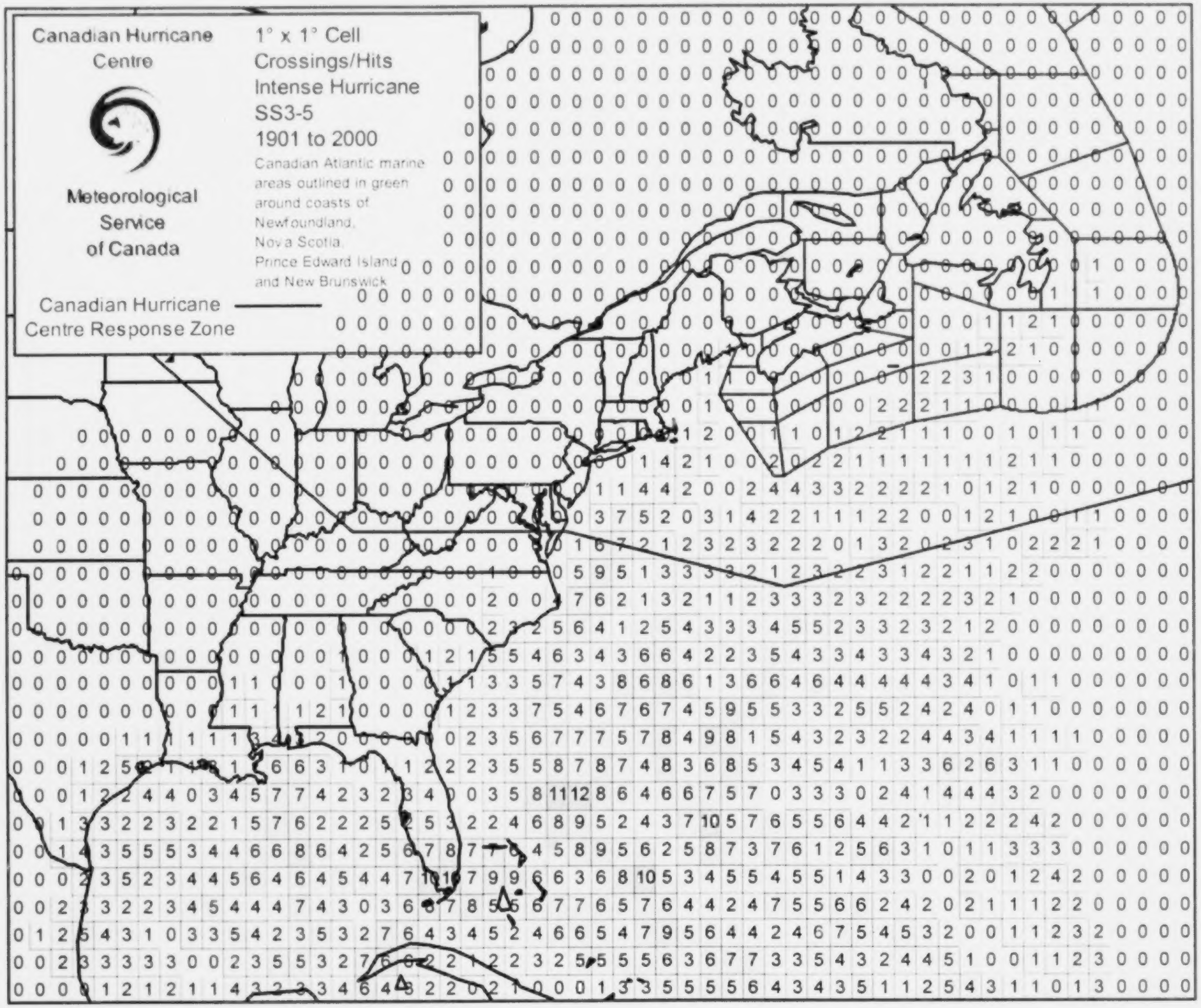

Canadian Hurricane Centre
Meteorological Service of Canada
1° x 1° Cell Crossings/Hits Intense Hurricane SS3-5
1901 to 2000
Canadian Atlantic marine areas outlined in green around coasts of Newfoundland, Nova Scotia, Prince Edward Island and New Brunswick
Canadian Hurricane Centre Response Zone

← 6,824 km²

100 years
1901-2000

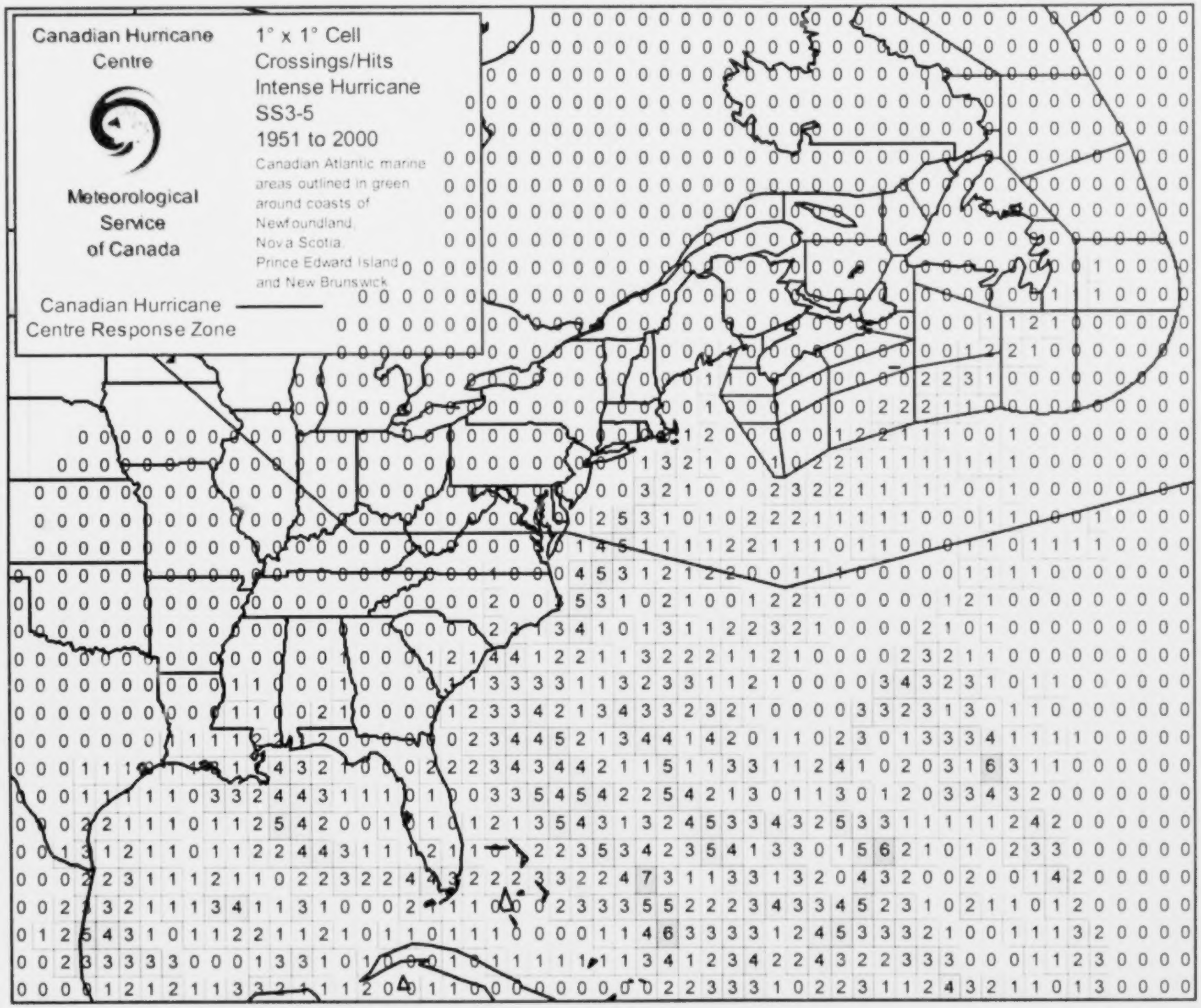
← 8,819 km²

← 10,070 km²

1° x 1° cell areas decrease with increasing latitude. Therefore, strike frequencies are actually more significant on a *per area* basis over northern latitudes.

Ex. a 2 cell over Halifax has about 1.3 times the significance as a 2 over Cuba… equivalent to a 2.6 over Cuba.

← 11,500 km²


Canadian Hurricane Centre
Meteorological Service of Canada
1° x 1° Cell Crossings/Hits Intense Hurricane SS3-5 1951 to 2000
Canadian Atlantic marine areas outlined in green around coasts of Newfoundland, Nova Scotia, Prince Edward Island and New Brunswick
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50 years
1951-2000

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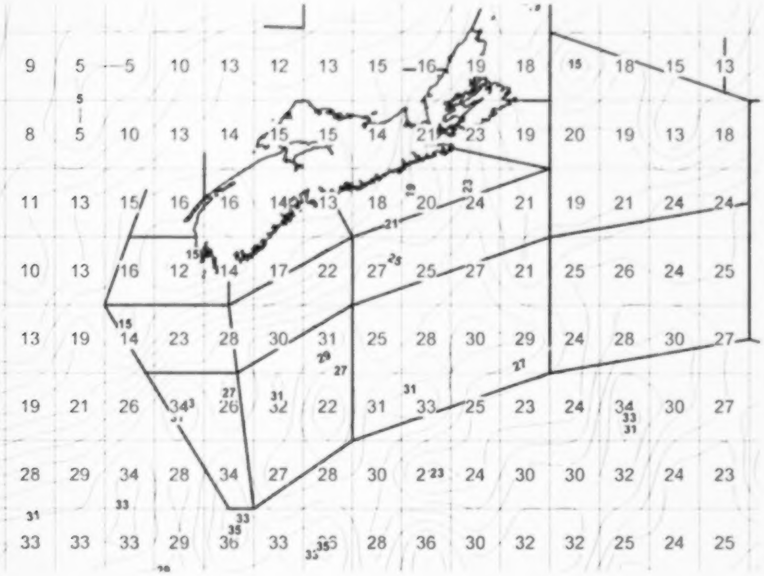
Basin Contour Maps

Contour maps provide visually appealing displays and highlight trends very well. The grid cell statistics originally generated in Mapinfo© were exported to Golden Software's Surfer©(1) utility and contours were generated from that package. Generating grids within Surfer© requires point data. The Atlantic basin statistics were initially generated for one degree by one degree areas. The area statistics were transferred to the cell centroids which in turn provided the XY data for Surfer©. It is recognized that interpreting the statistics in this manner could be misleading. A '20' contour drawn through the centre of a cell containing 20 tropical storm hits conveys a somewhat different meaning.

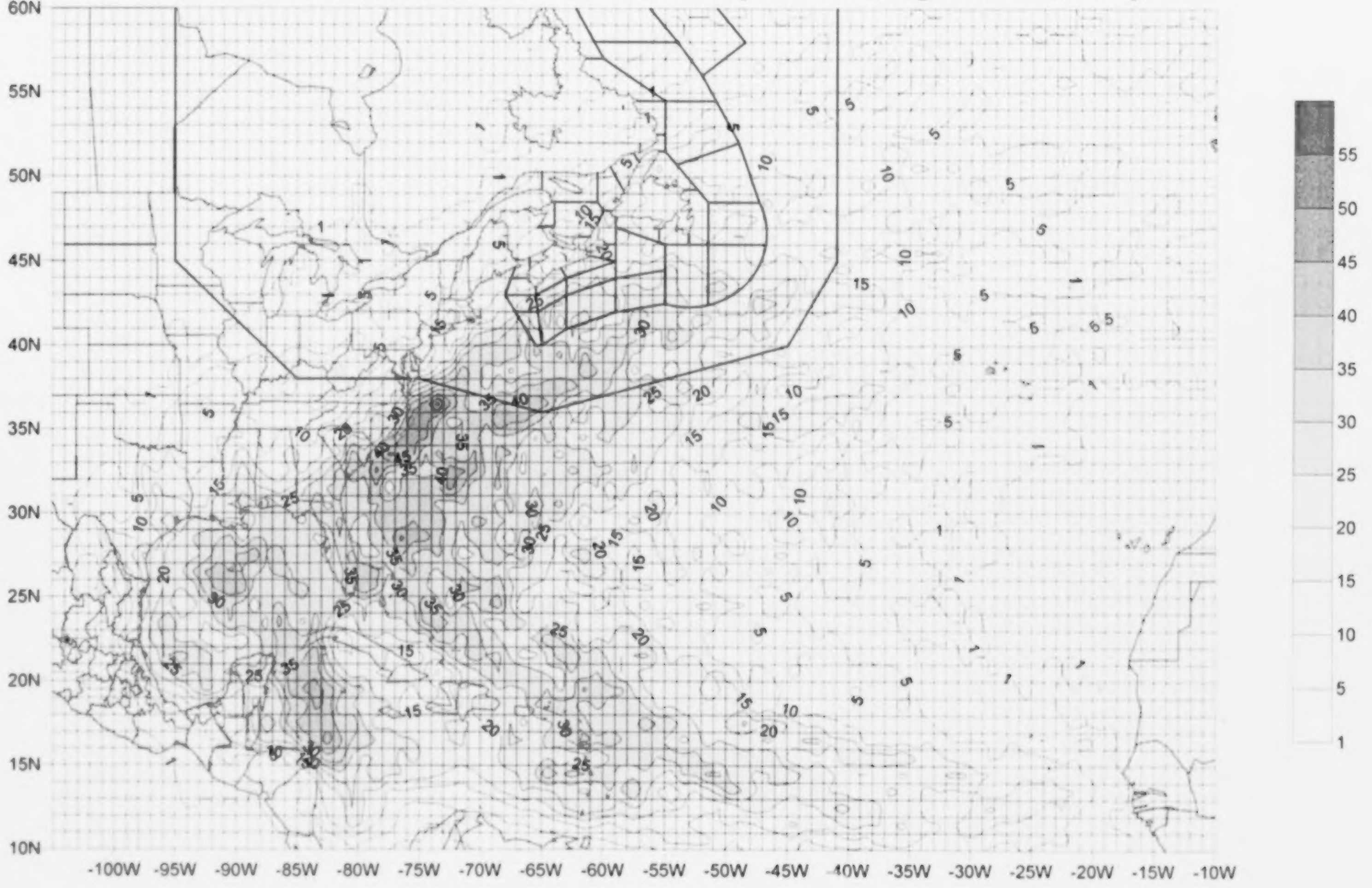
(1) Golden Software, Inc.
809 14th Street
Golden, Colorado 80401-1866
U.S.A.


9 5 5 10 13 12 13 15 16 19 18 15 18 15 13
8 5 10 13 14 15 15 14 21 23 19 20 19 13 18
11 13 15 16 16 14 13 18 20 24 21 19 21 24 24
10 13 16 12 14 17 22 27 25 27 21 25 26 24 25
13 19 14 23 28 30 31 25 28 30 29 24 28 30 27
19 21 26 34 26 32 22 31 33 25 23 24 34 30 27
28 29 34 28 34 27 28 30 23 24 30 30 32 24 23
33 33 33 29 36 33 36 28 36 30 32 32 25 24 25

The figure above illustrates the problem. The red numbers (large point size) are the original cell values for total number of hits of all intensities. The smaller black numbers are the contour labels. It is obvious that the contour map provides an excellent representation of trends for highs, lows and axis of maximum and minimum values. However care must be exercised when using the actual contour values.

Contour maps were generated for North Atlantic basin total grid cell hits, hurricane force hits and average system speeds recorded in each one-by-one degree grid cell (see below).

North Atlantic Basin (1901 to 2000) - Count of all tropical storms, regardless of intensity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-45W
-40W
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-25W
-20W
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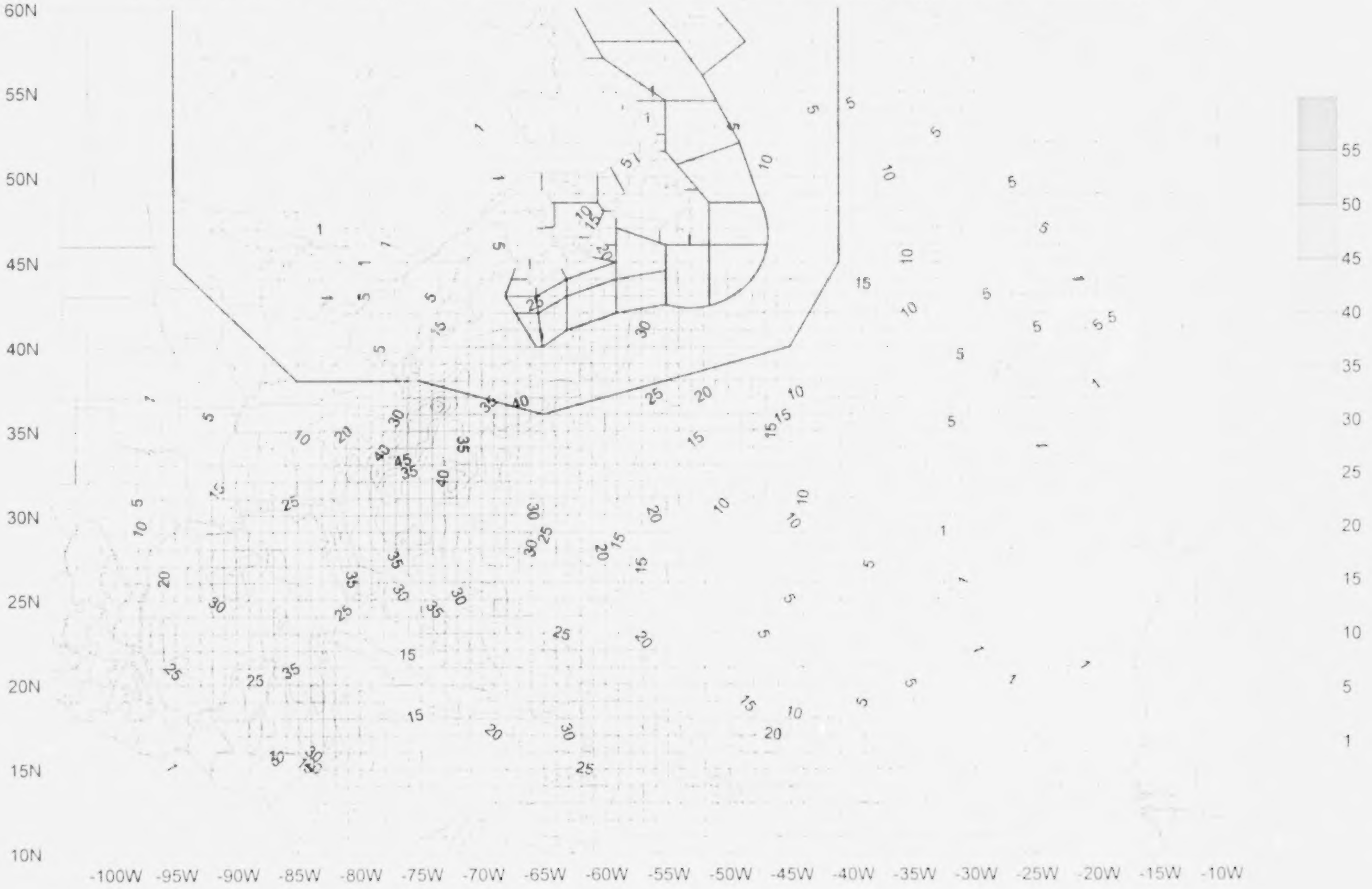
North Atlantic Basin (1901 to 2000) - Count of all tropical storms, regardless of intensity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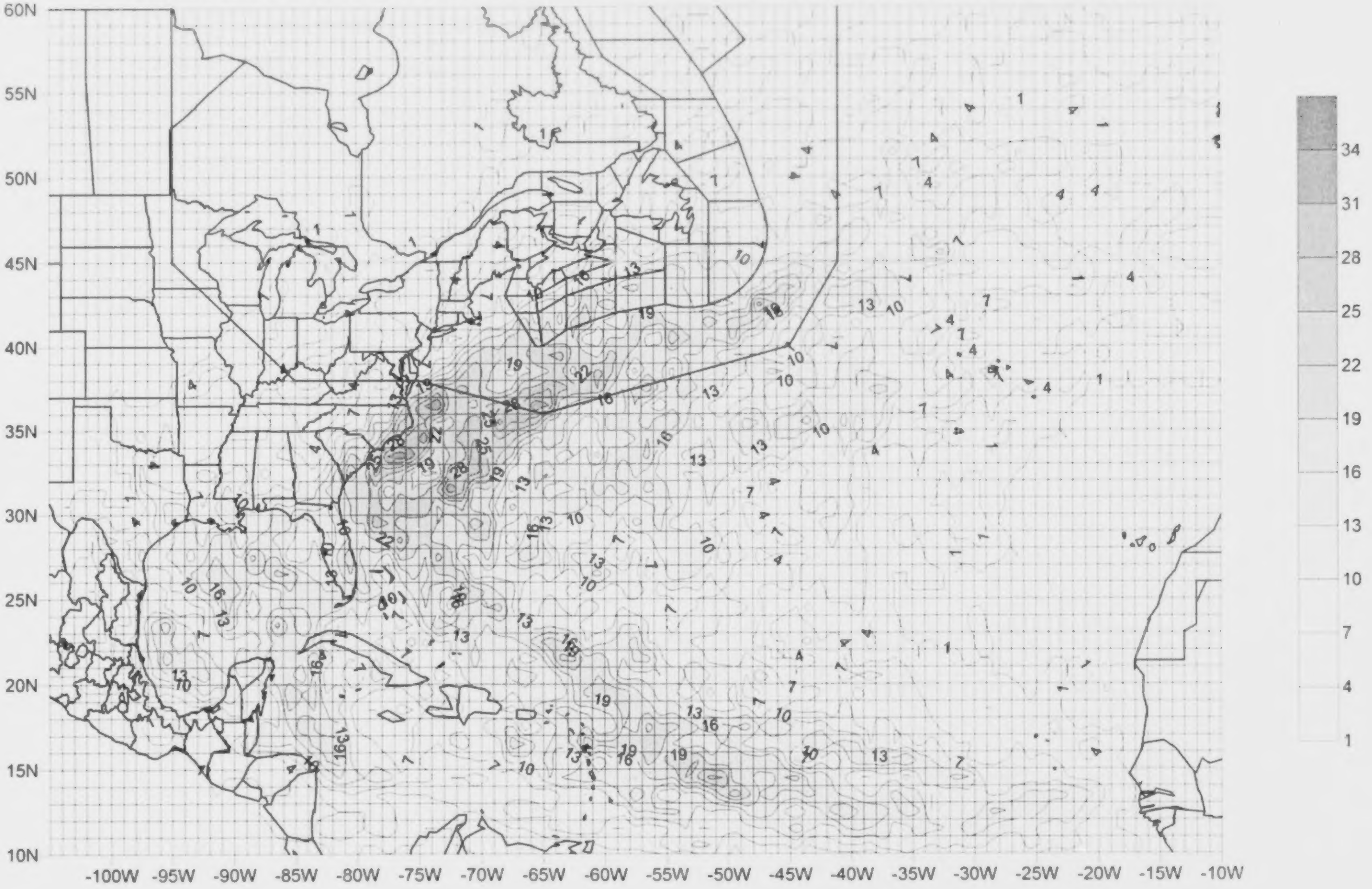
North Atlantic Basin (1951 to 2000) - Count of all tropical storms, regardless of intensity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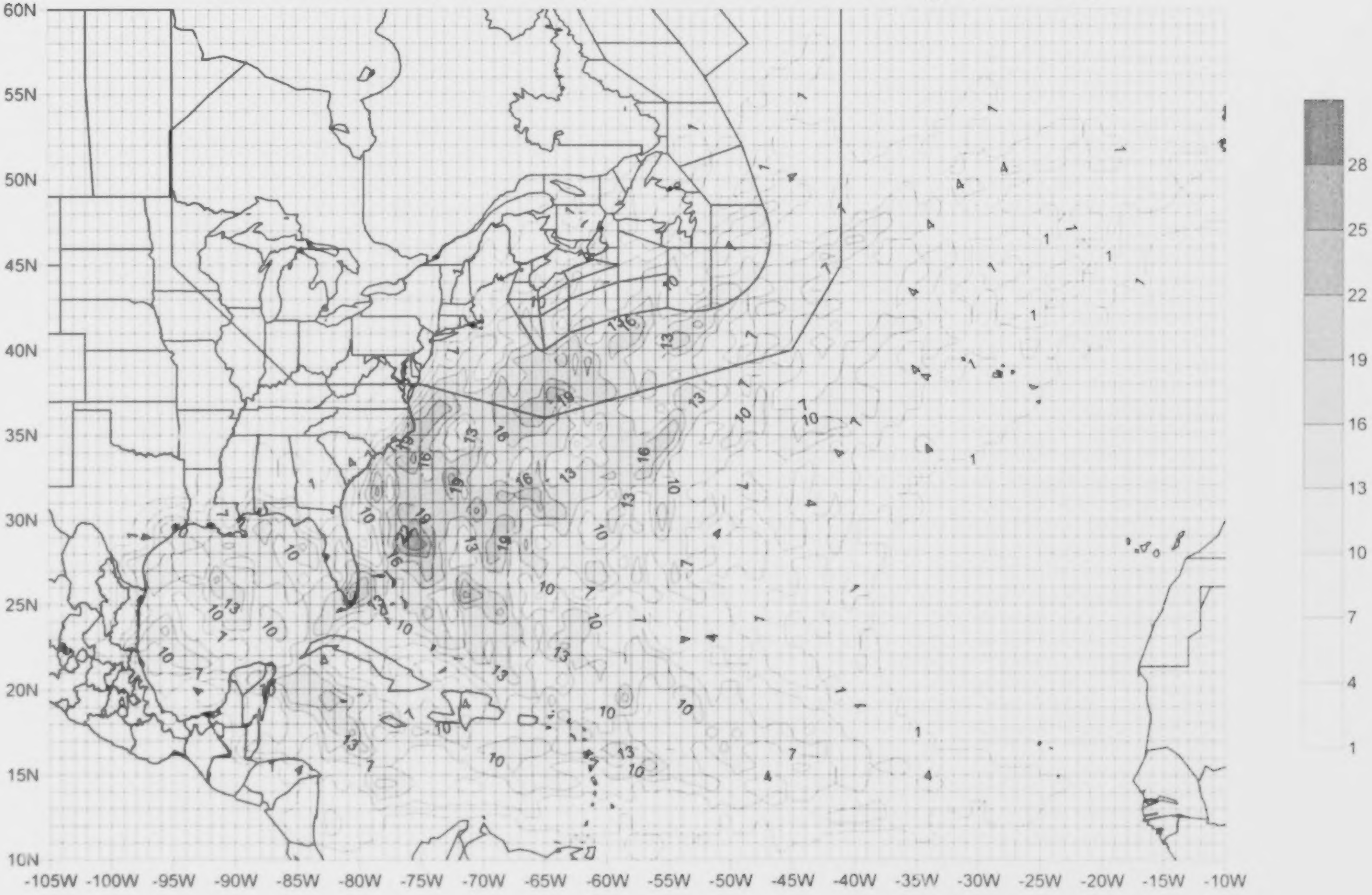
North Atlantic Basin (1901 to 2000) - Storms of Hurricane Strength (>63 knots)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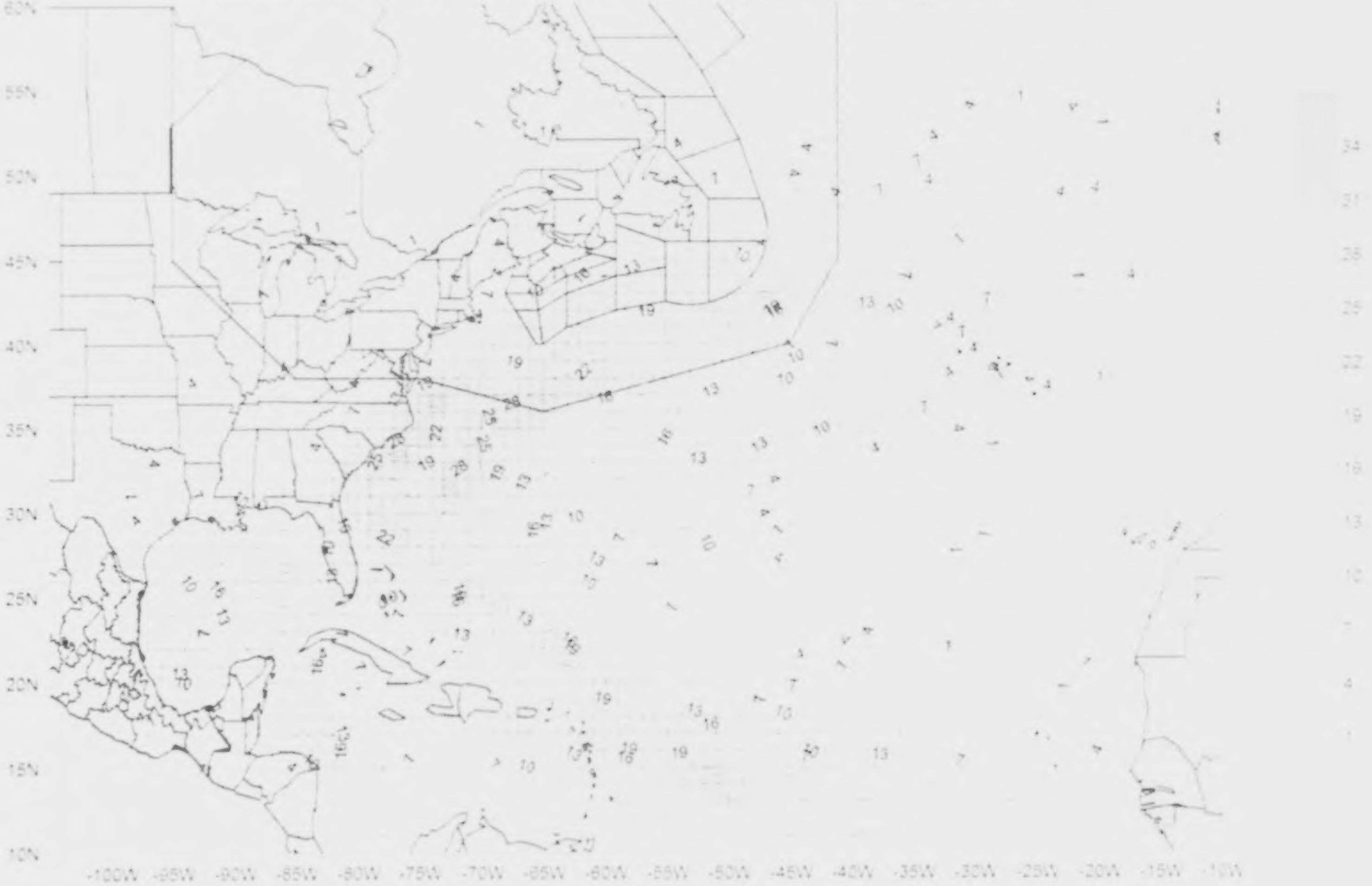
North Atlantic Basin (1951 to 2000) - Count of all tropical storms, regardless of intensity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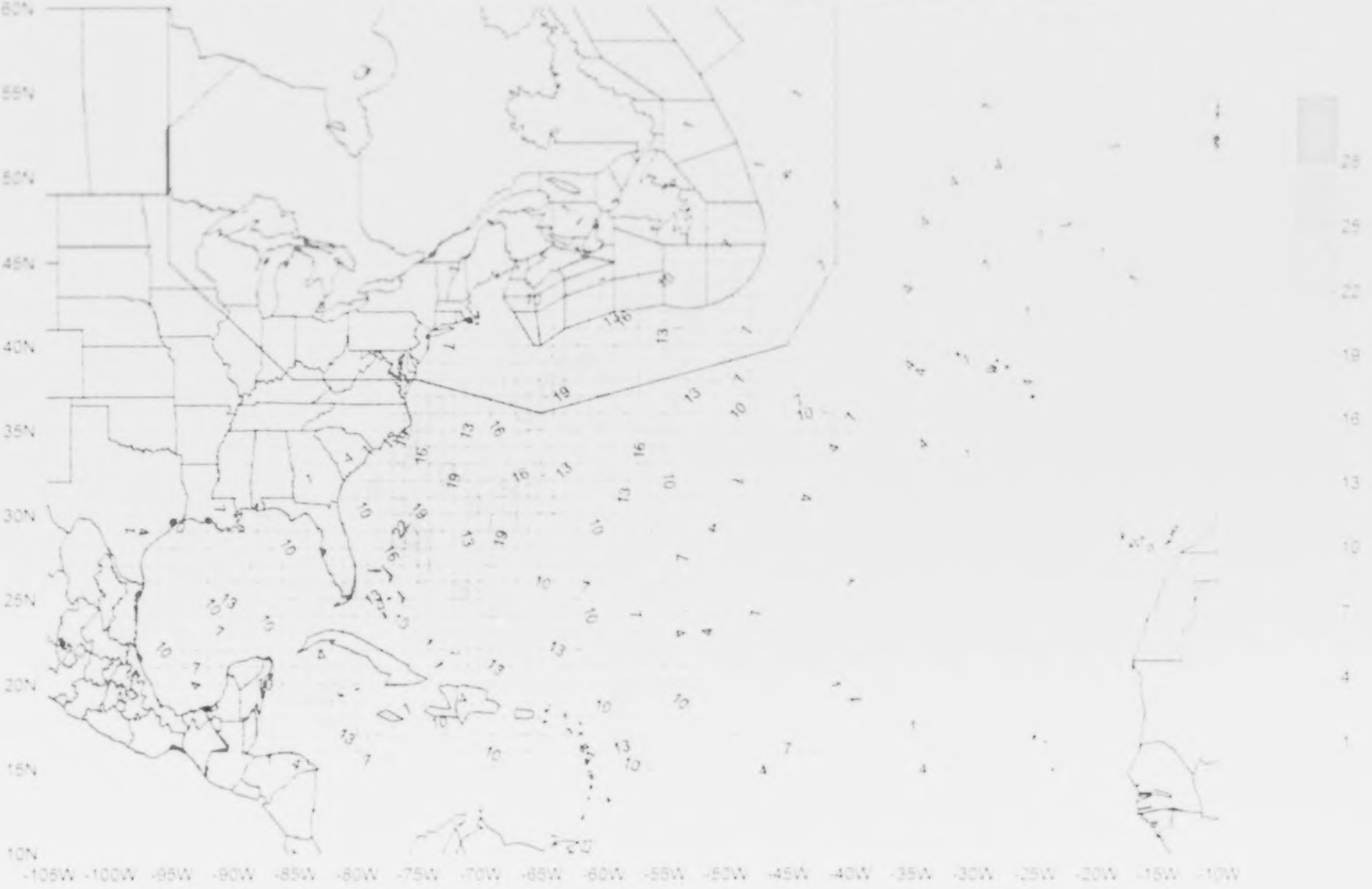
North Atlantic Basin (1901 to 2000) - Storms of Hurricane Strength (>63 knots)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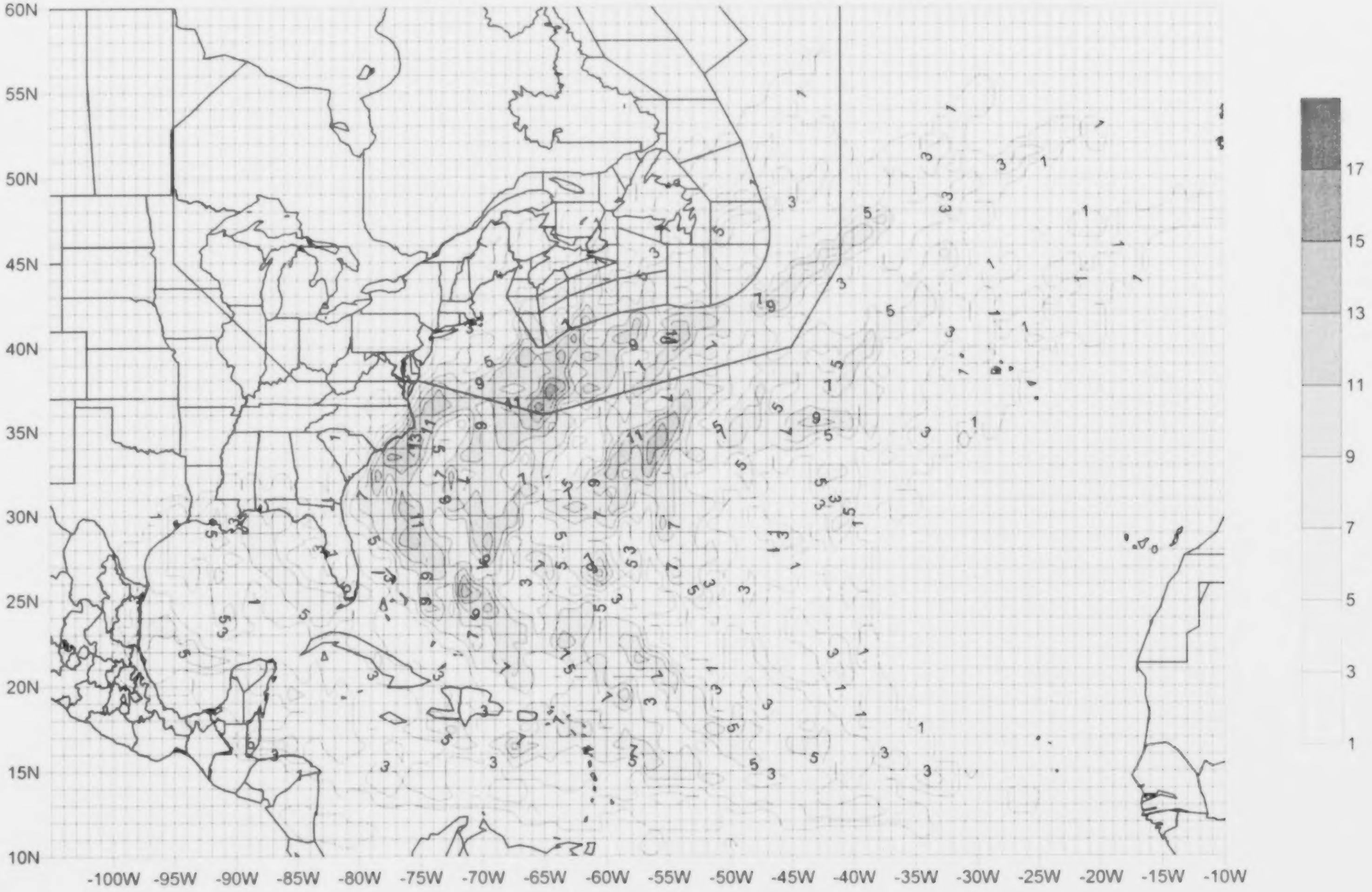
North Atlantic Basin (1951 to 2000) - Storms of Hurricane Strength (>63 knots)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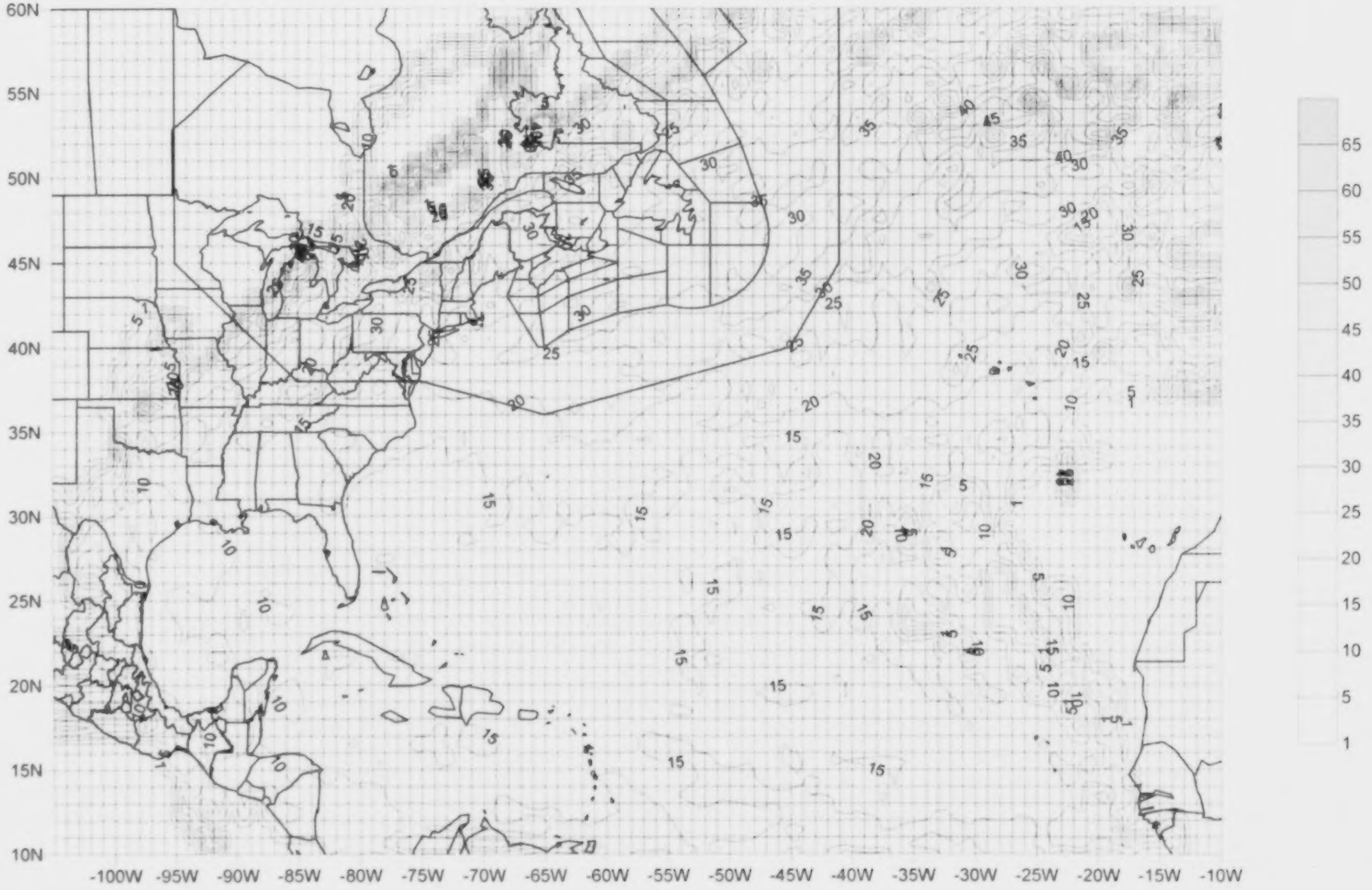
North Atlantic Basin (1901 to 2000) - Average System Translation Speed (knots)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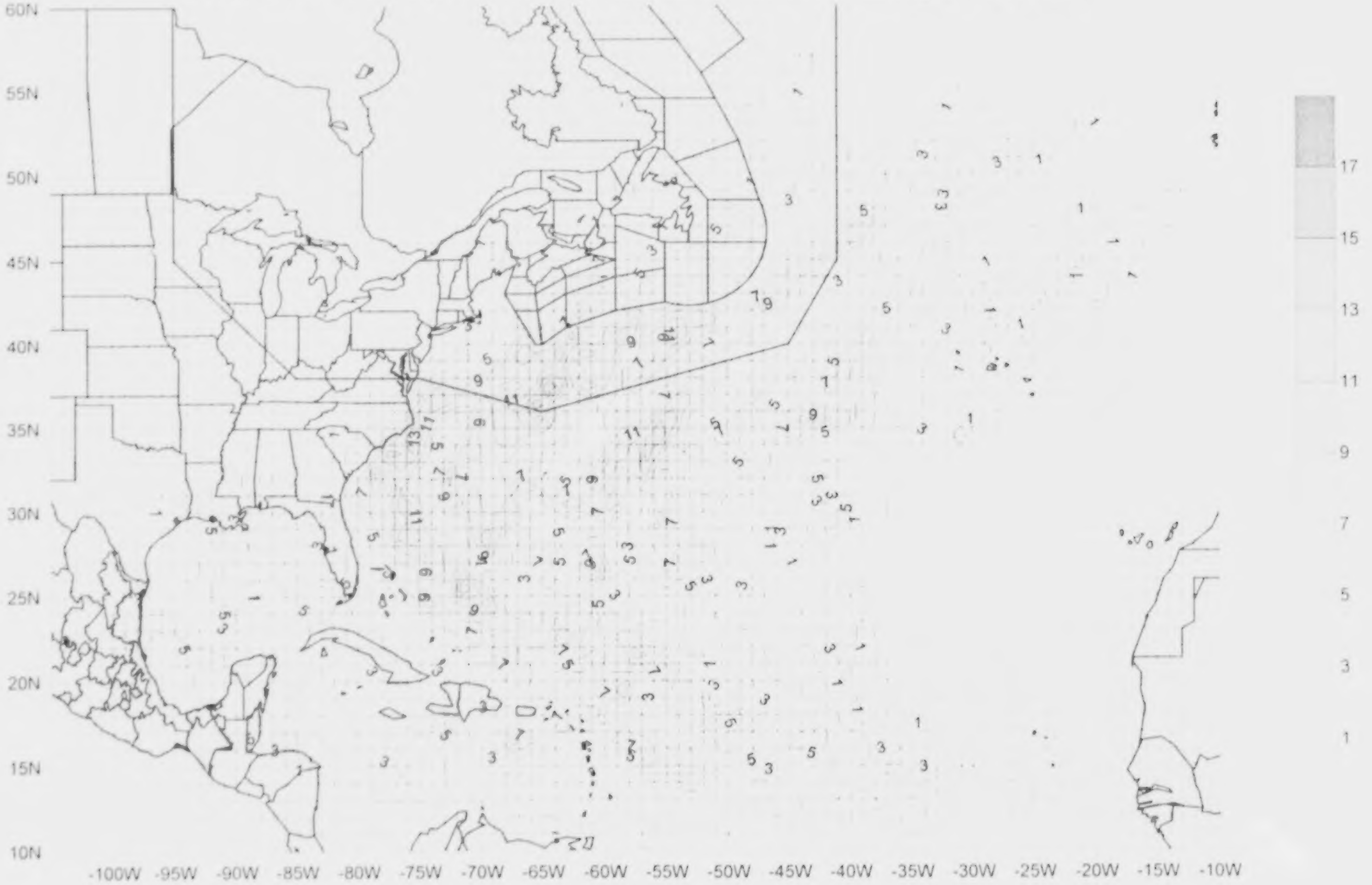
North Atlantic Basin (1951 to 2000) - Storms of Hurricane Strength (>63 knots)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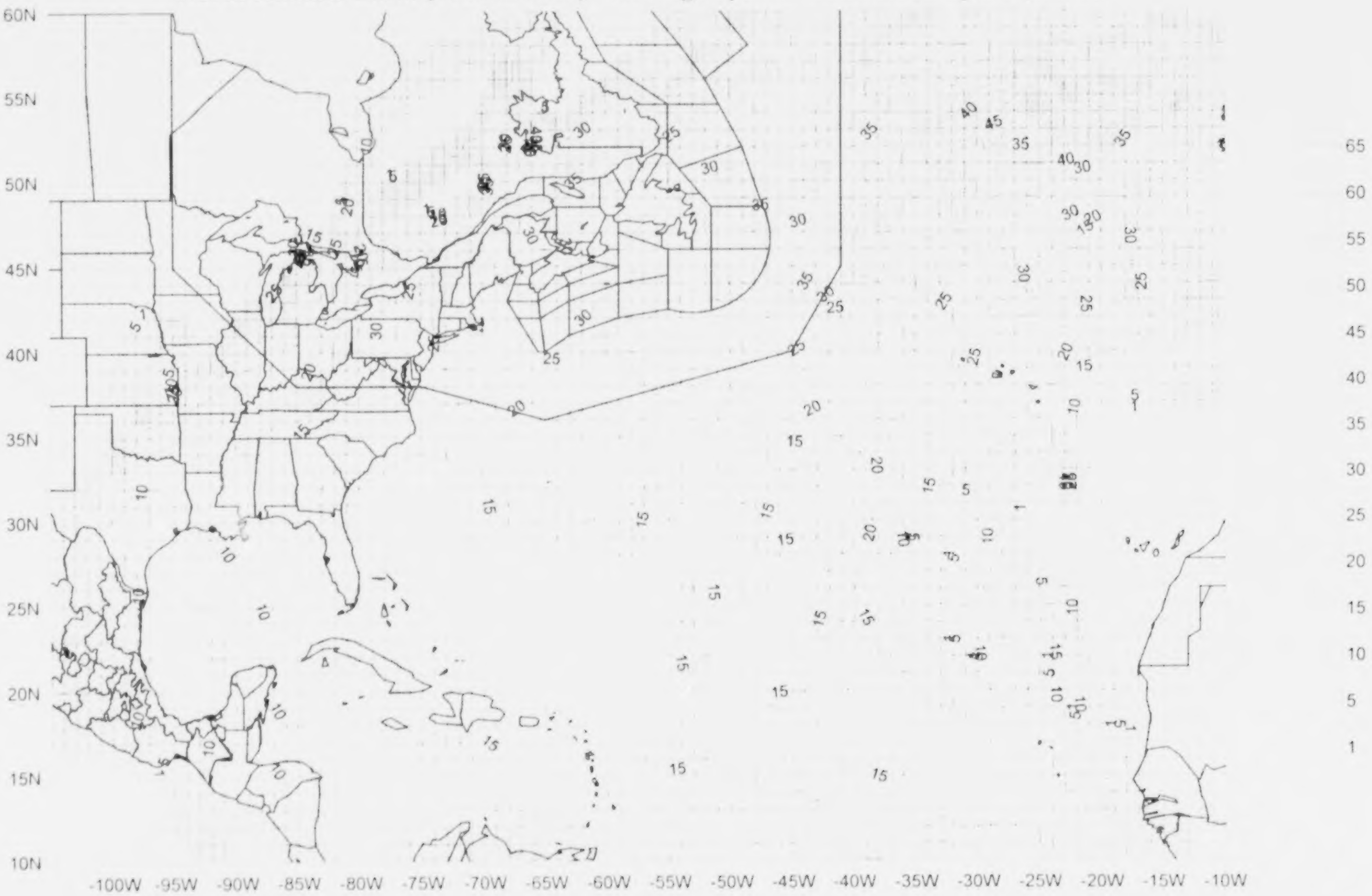
North Atlantic Basin (1901 to 2000) - Average System Translation Speed (knots)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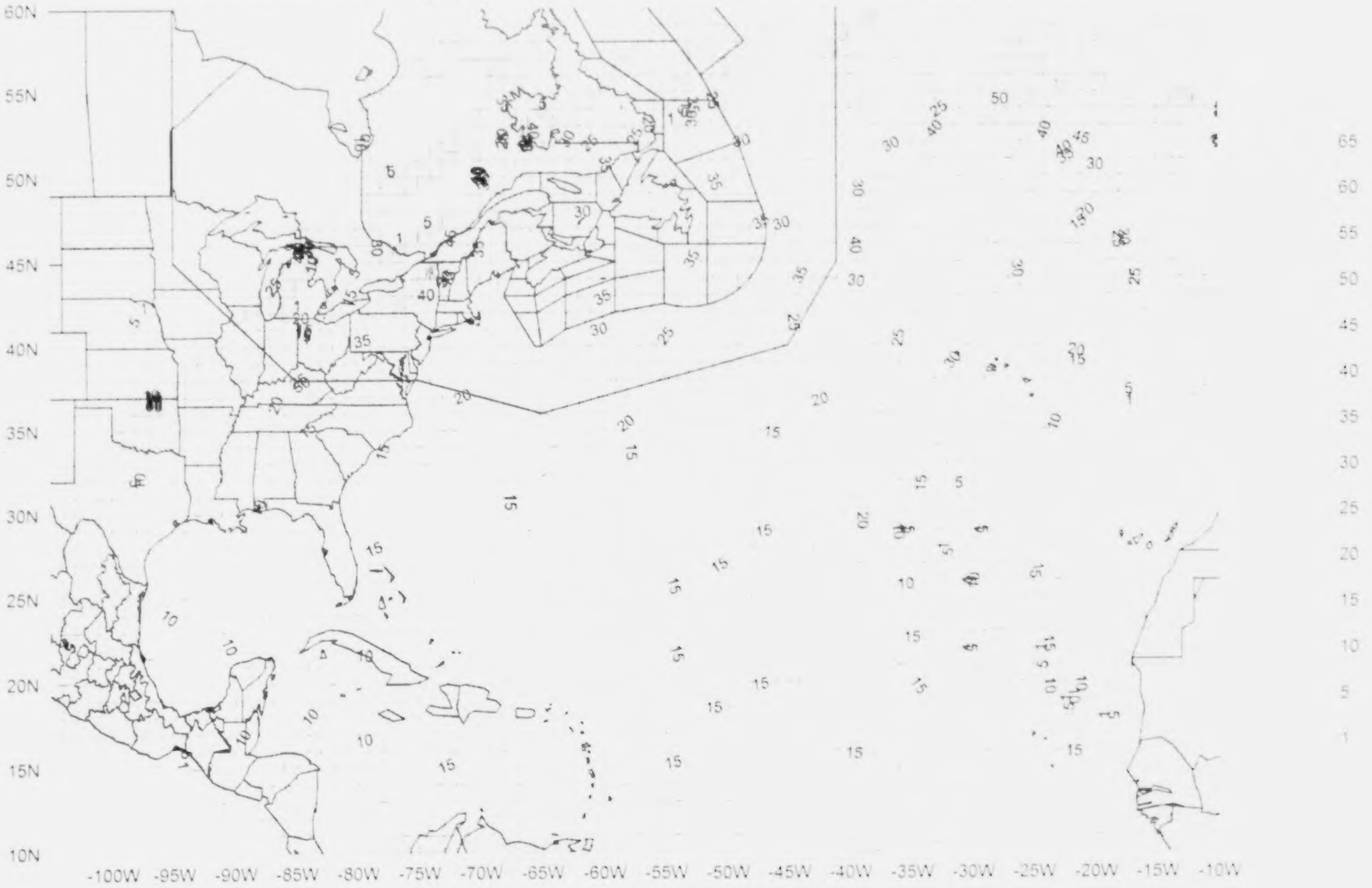
North Atlantic Basin (1951 to 2000) - Average System Translation Speed (knots)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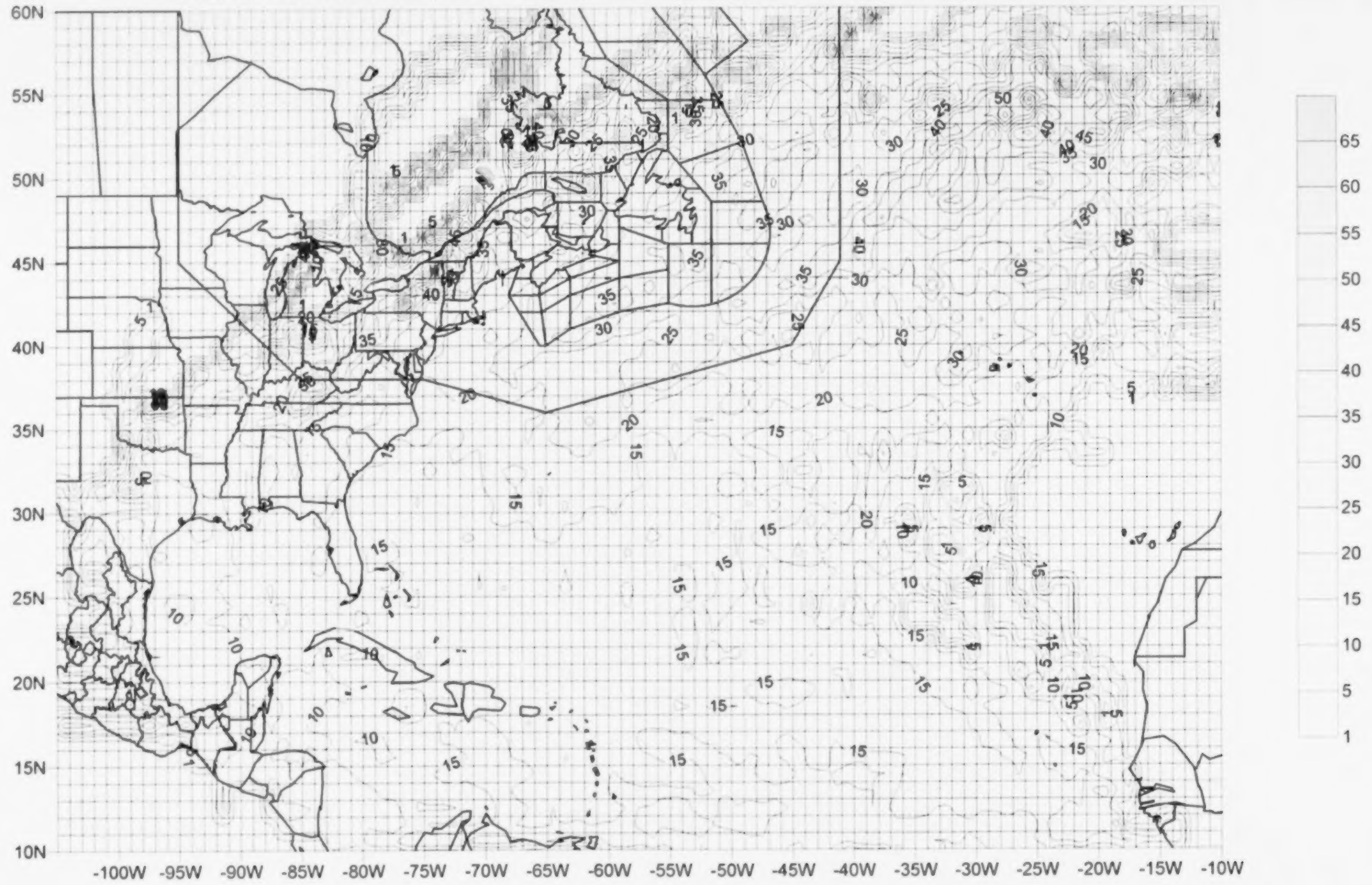
North Atlantic Basin (1951 to 2000) - Average System Translation Speed (knots)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55N
50N
45N
40N
35N
30N
25N
20N
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10N
-100W
-95W
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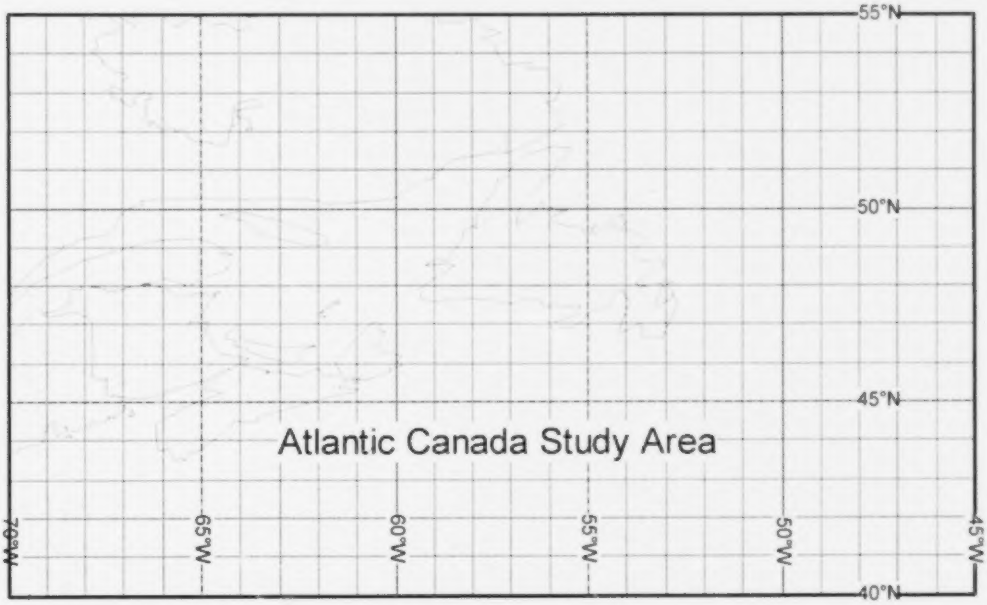
-80W
-75W
-70W
-65W
-60W
-55W
-50W
-45W
-40W
-35W
-30W
-25W
-20W
-15W
-10W
65
60
55
50
45
40
35
30
25
20
15
10
5
1

See Appendix IV for detailed cell statistics for the entire North Atlantic basin.

Atlantic Canada Sub-Grid

An Atlantic Canada subset of the Basin grid was extracted for closer study. The bounds for the smaller grid are shown on the figure below. A number of thematic maps were generated for the smaller grid as well.

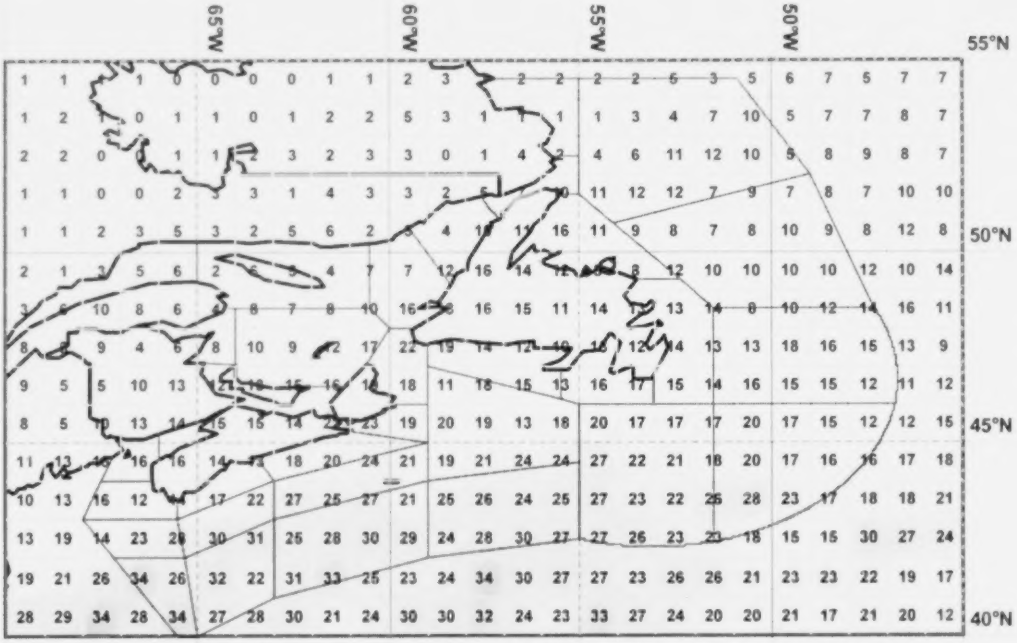


Atlantic Canada sub-grid

The Atlantic sub-grid was defined to match the area used by Barks and Richards in their 1986 study of Atlantic Canada hurricanes (*The Climatology of Tropical Cyclones in Atlantic Canada* - Appendix II). The 1986 study represented a considerable achievement in that manual examination of storm tracks was used to develop frequency statistics. The current study employs computer based geographic structured query language techniques. A rudimentary comparison of the 1986 tropical storm frequencies with the values obtained in this study was considered useful. The comparison also provides some historical continuity for tropical storm studies in the region.

See Appendix III for a full tabular listing of all cell, 260 km radius and 400 km radius statistics for the Atlantic Canada sub-grid.

Atlantic Canada Grid Cell Thematic Maps



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10	13	16	12	14	17	22	27	25	27	21	25	26	24	25	27	23	22	25	28	23	17	18	18	21
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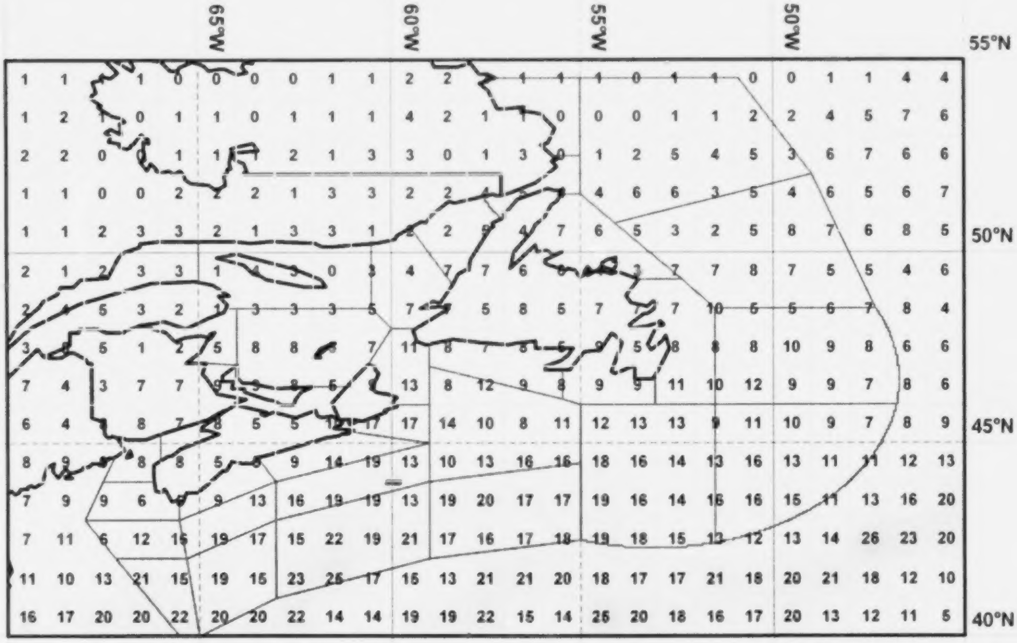
19	21	26	34	26	32	22	31	33	25	23	24	34	30	27	27	23	26	26	21	23	23	22	19	17
28	29	34	28	34	27	28	30	21	24	30	30	32	24	23	33	27	24	20	20	21	17	21	20	12

Count of all tropical storms (regardless of intensity) Atlantic Canada (1901–2000)



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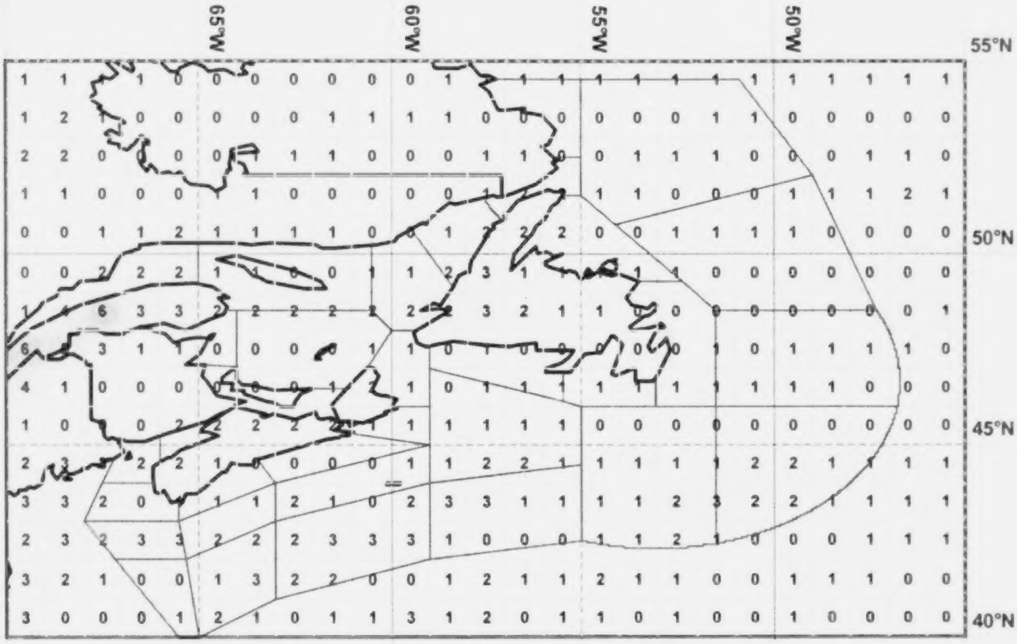
16	17	20	20	22	20	20	22	14	14	19	19	22	15	14	25	20	18	16	17	20	13	12	11	5

Count of all tropical storms (regardless of intensity) Atlantic Canada (1951–2000)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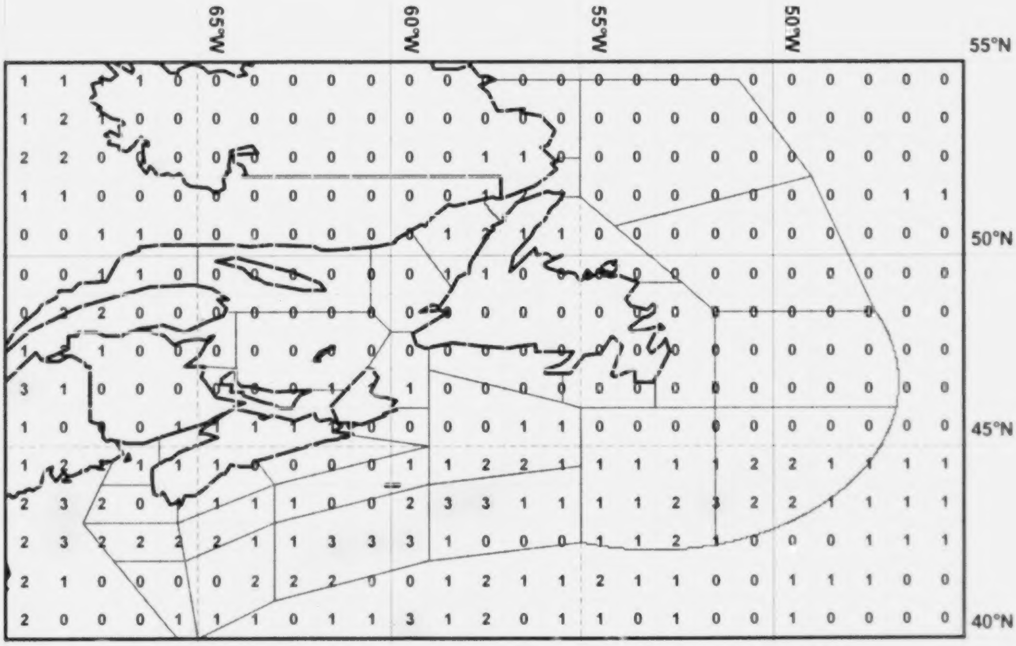
45°N
40°N

All Tropical Depressions (< 34 knots) Atlantic Canada (1901–2000)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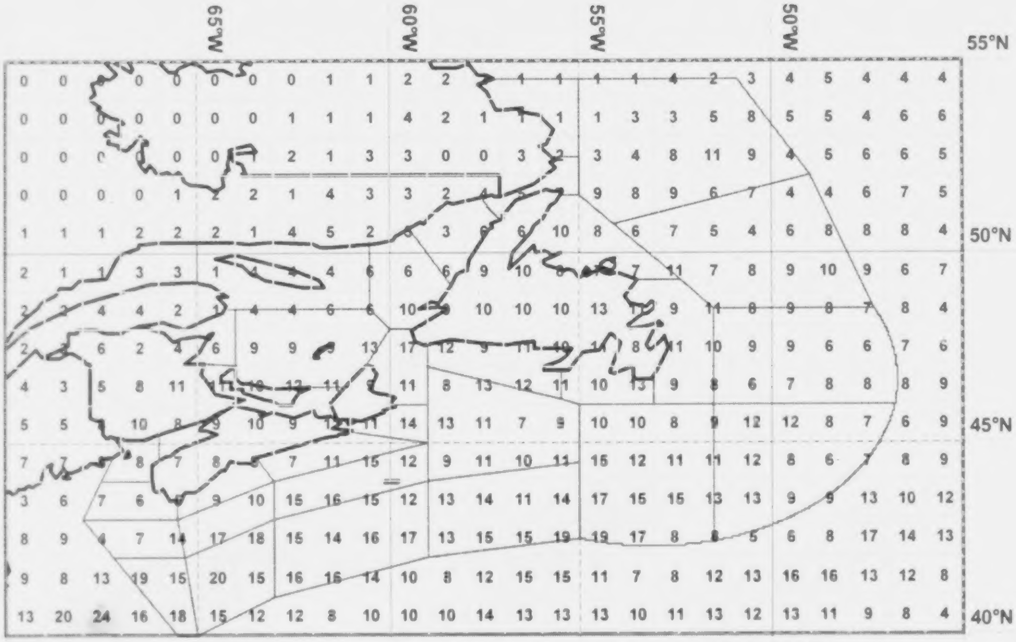
All Tropical Depressions (< 34 knots) Atlantic Canada (1951–2000)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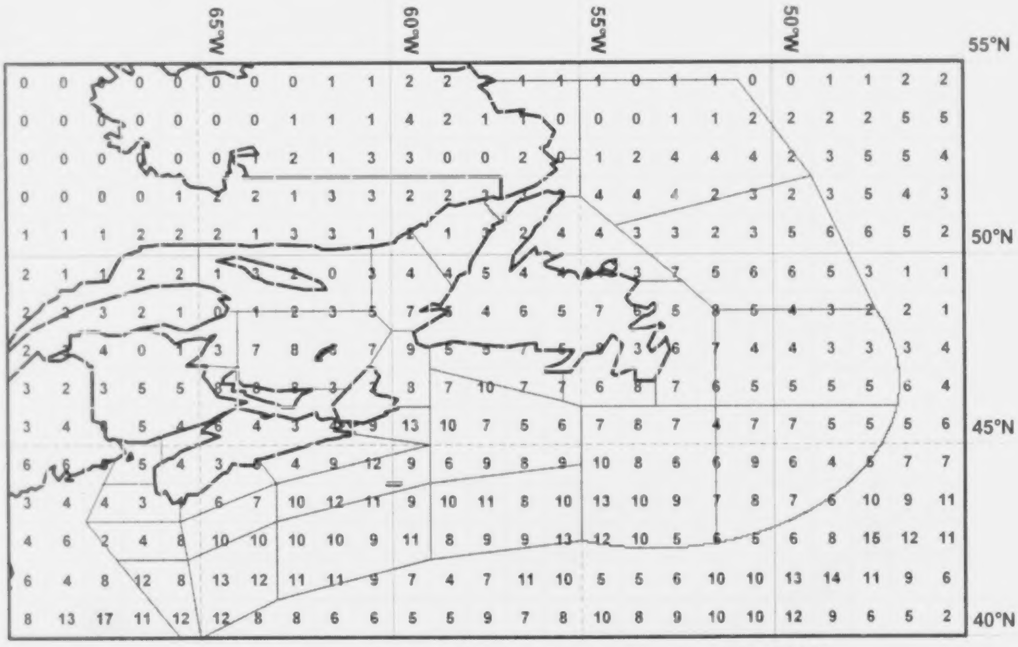
Tropical Storms (34 to 63 knots) Atlantic Canada (1901–2000)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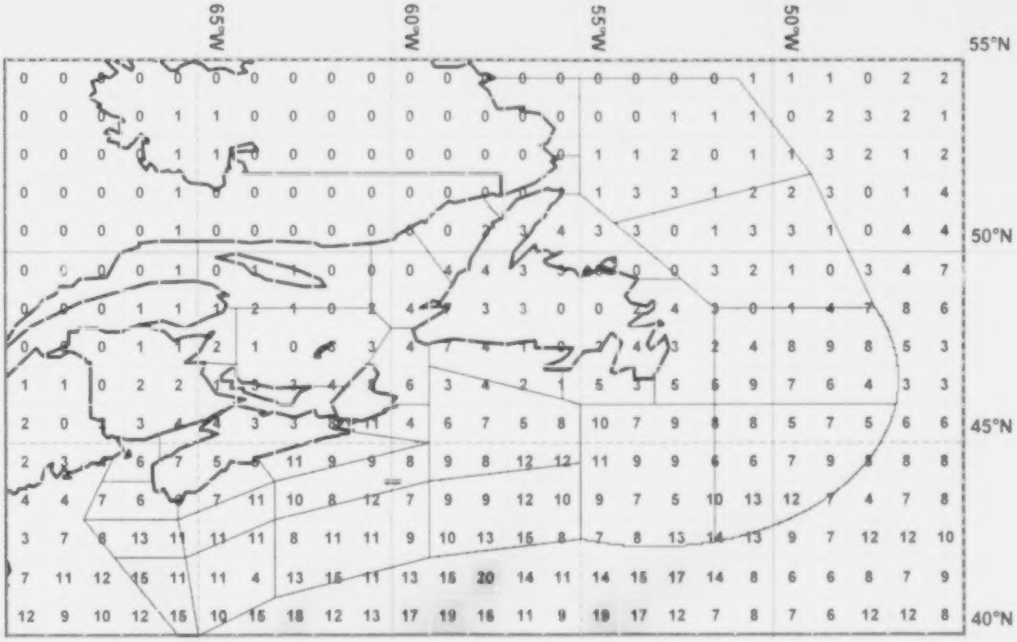
Tropical Storms (34 to 63 knots) Atlantic Canada (1951–2000)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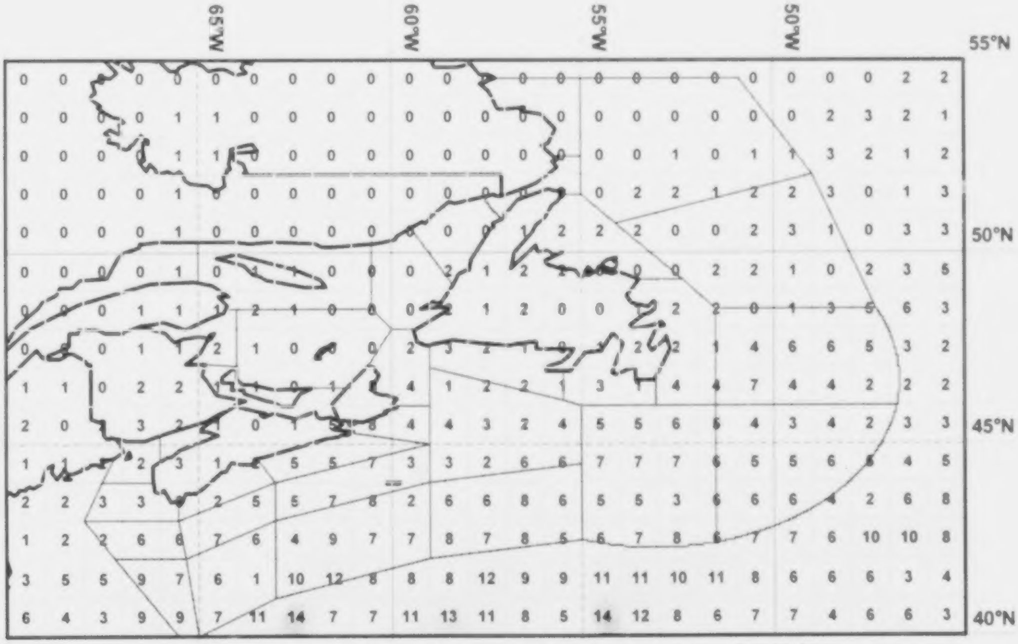
Hurricane intensity (> 63 knots) Atlantic Canada (1901–2000)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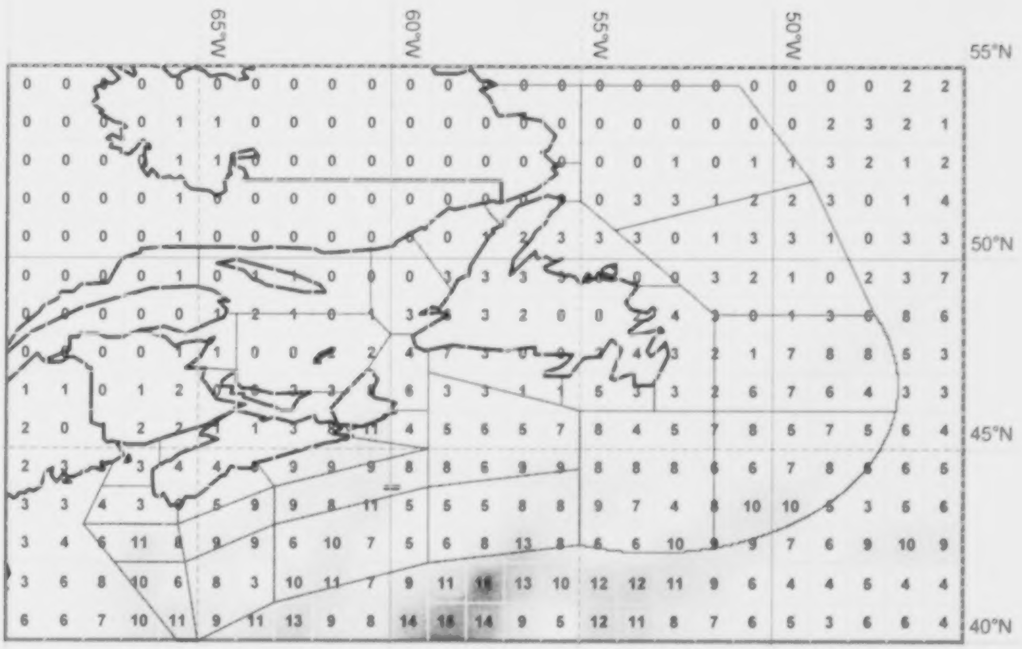
Hurricane intensity (> 63 knots) Atlantic Canada (1951–2000)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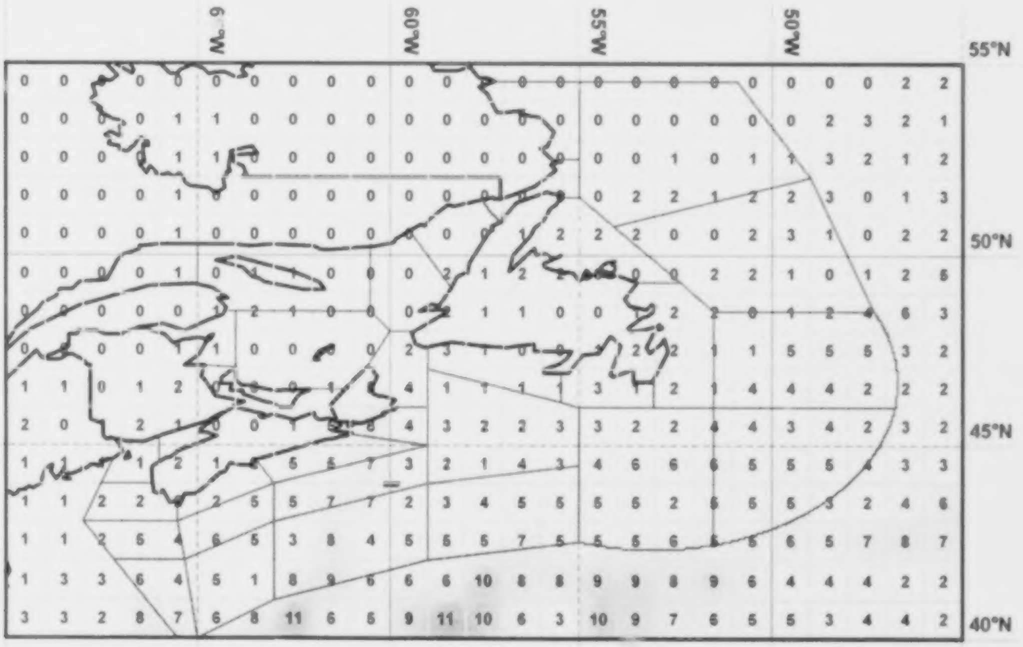
Saffir Simpson level I storms (64-82 knots) Atlantic Canada (1901–2000)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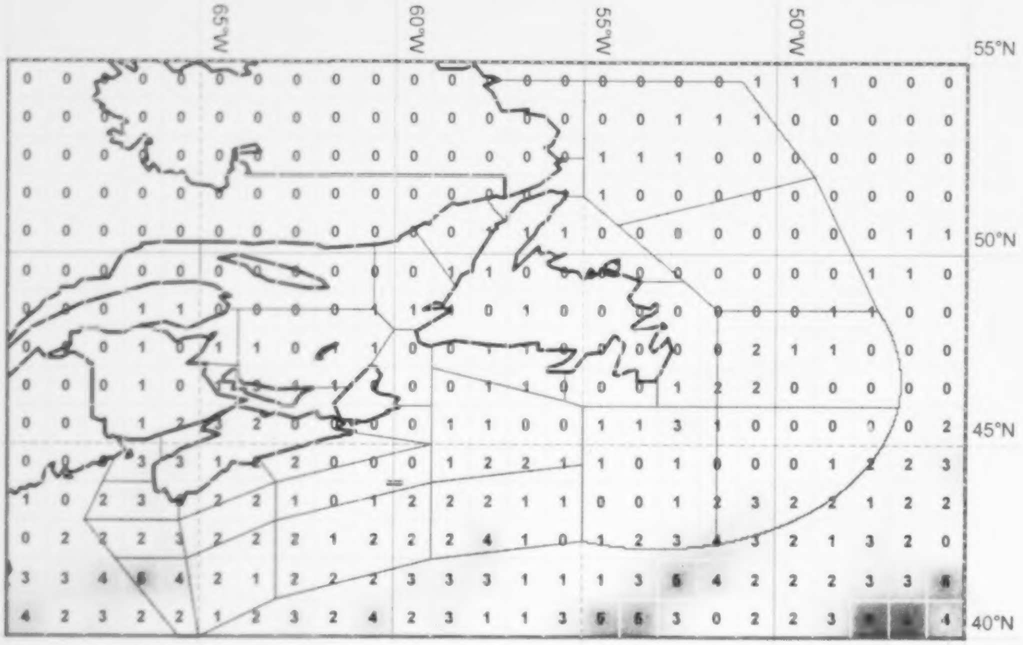
Saffir Simpson level I storms (64-82 knots) Atlantic Canada (1951–2000)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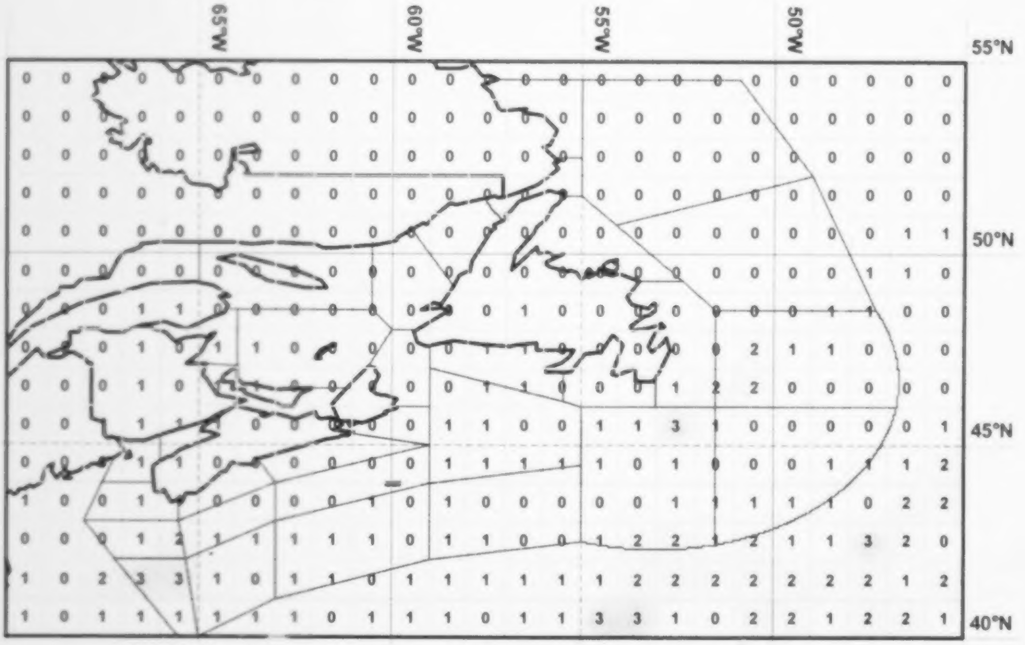
Saffir Simpson level II storms (83-95 knots) Atlantic Canada (1901–2000)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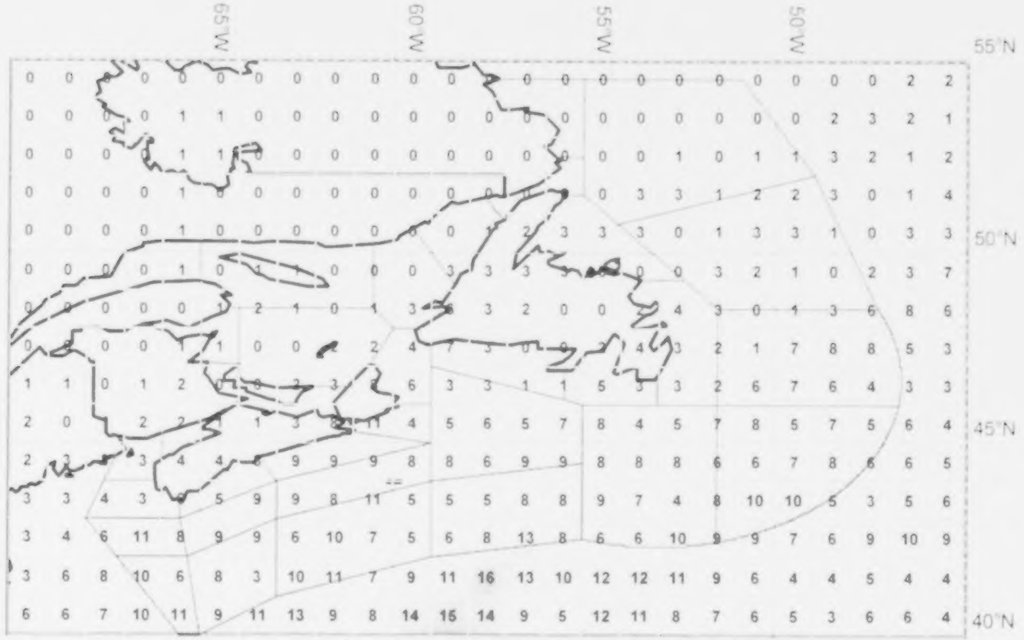
45°N
40°N

Saffir Simpson level II storms (83-95 knots) Atlantic Canada (1951–2000)


65°W
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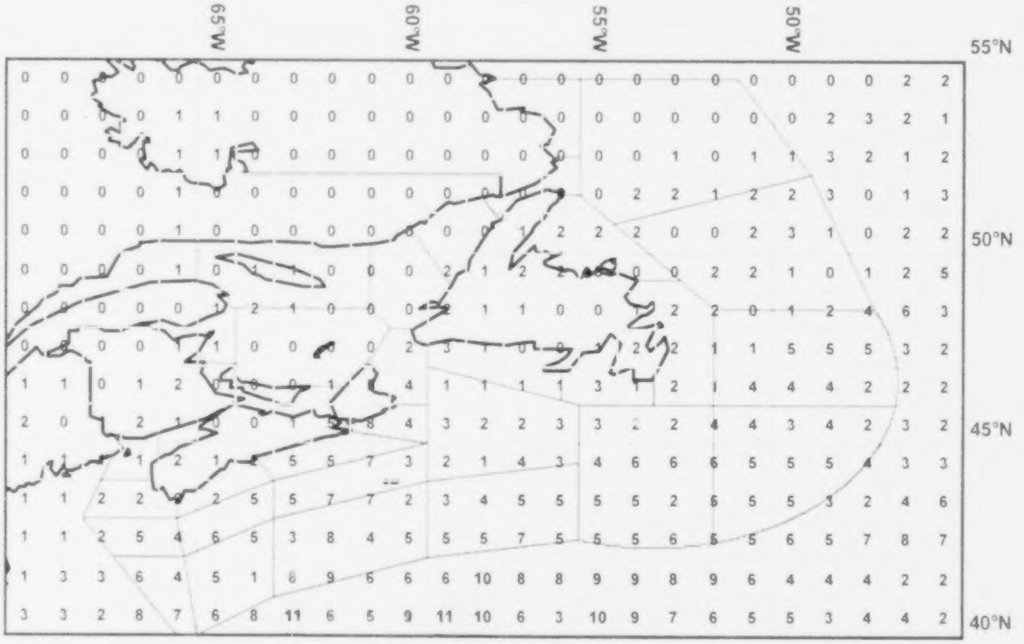
45°N
40°N

Saffir Simpson level I storms (64-82 knots) Atlantic Canada (1901–2000)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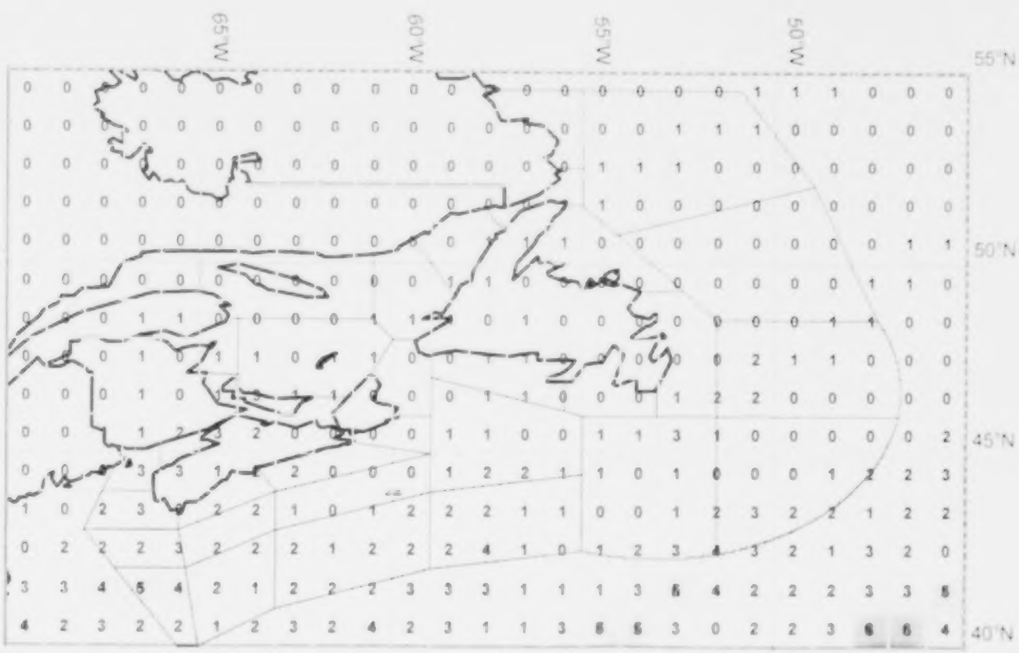
50°N
45°N
40°N

Saffir Simpson level I storms (64-82 knots) Atlantic Canada (1951–2000)


65°W
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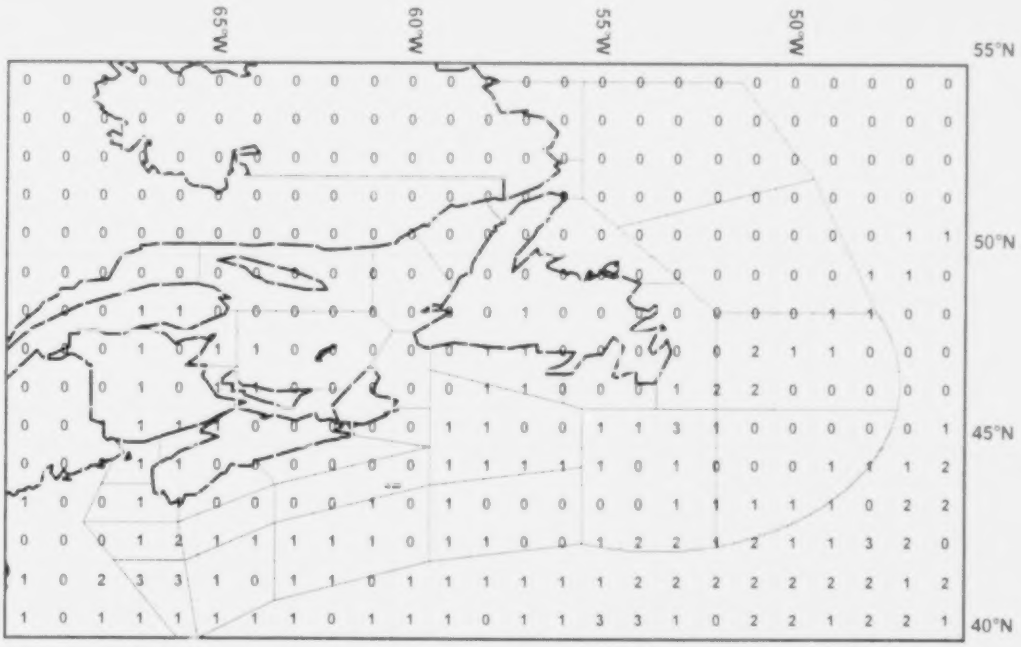
50°N
45°N
40°N

Saffir Simpson level II storms (83-95 knots) Atlantic Canada (1901–2000)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60°W
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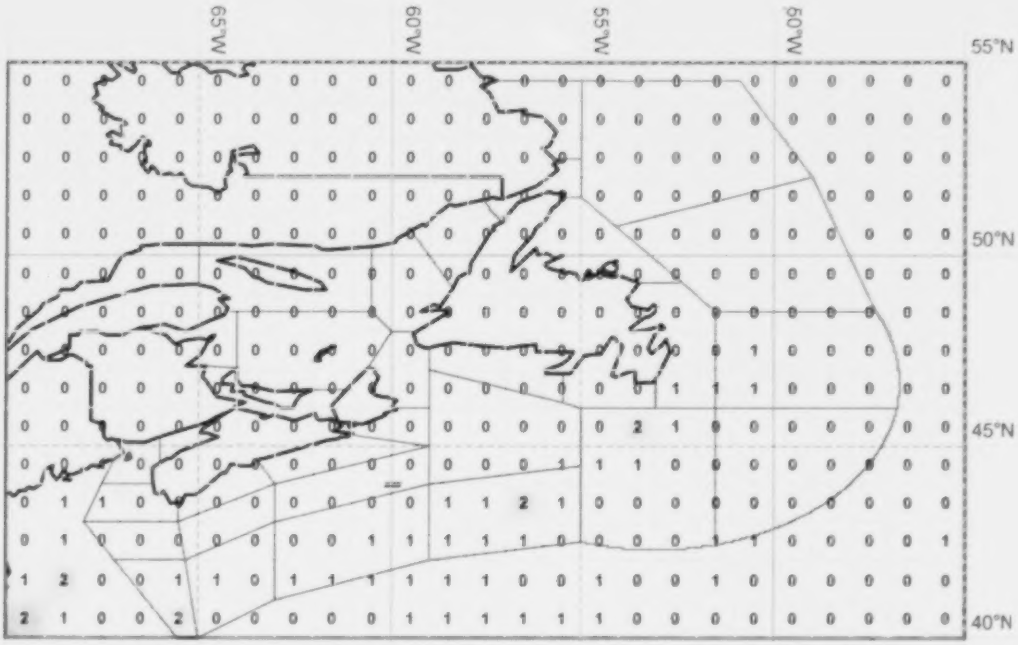
50°W
55°N
50°N
45°N
40°N

Saffir Simpson level II storms (83-95 knots) Atlantic Canada (1951–2000)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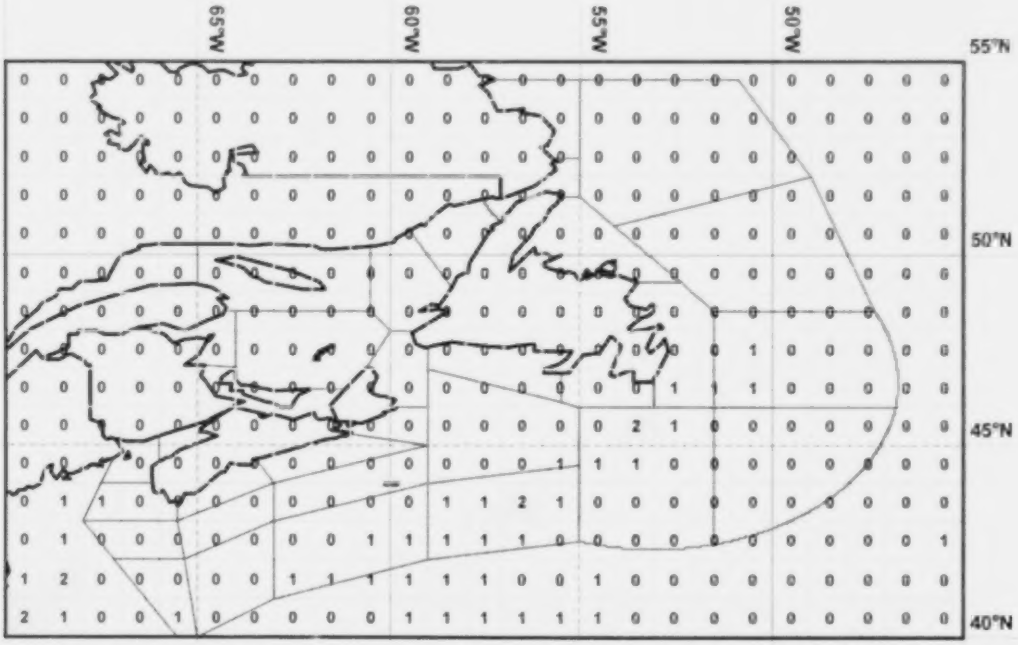
50°N
45°N
40°N

Saffir Simpson level III storms (96-113 knots) Atlantic Canada (1901–2000)


65°W
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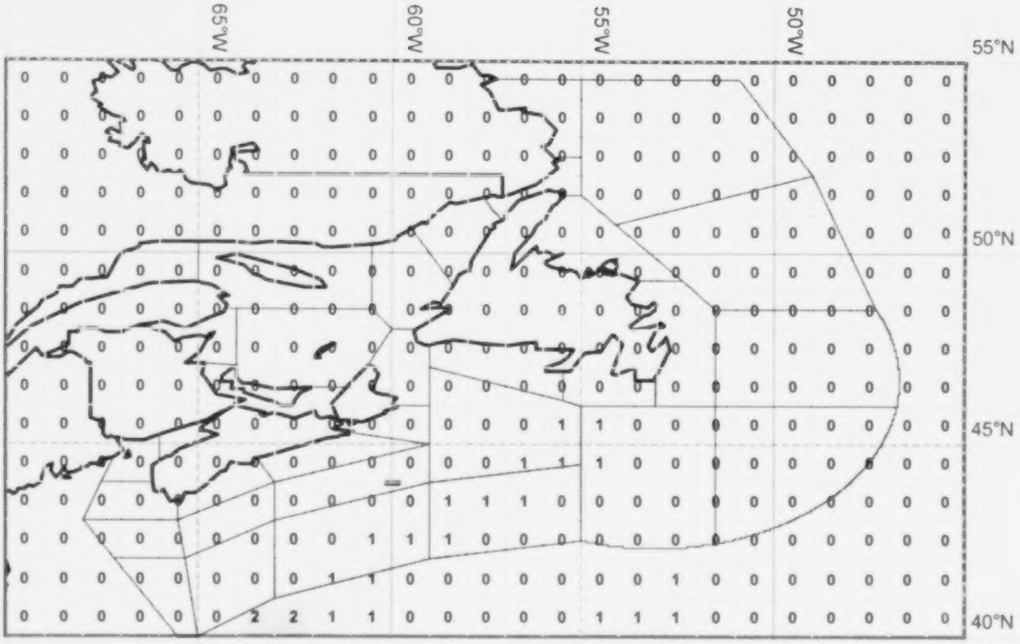
55°N
50°N
45°N
40°N

Saffir Simpson level III storms (96-113 knots) Atlantic Canada (1951–2000)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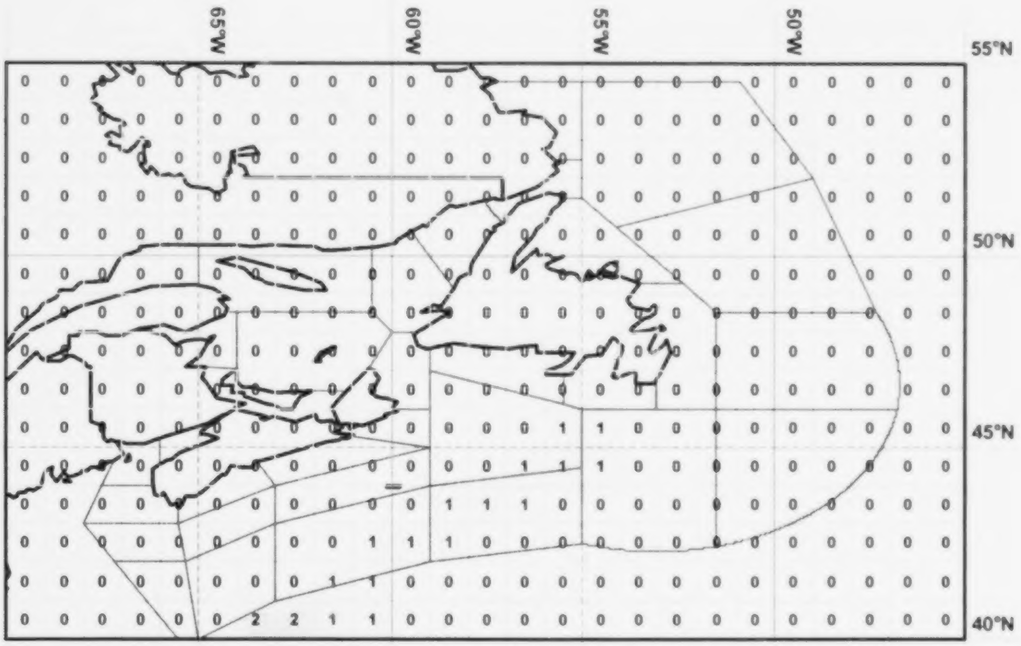
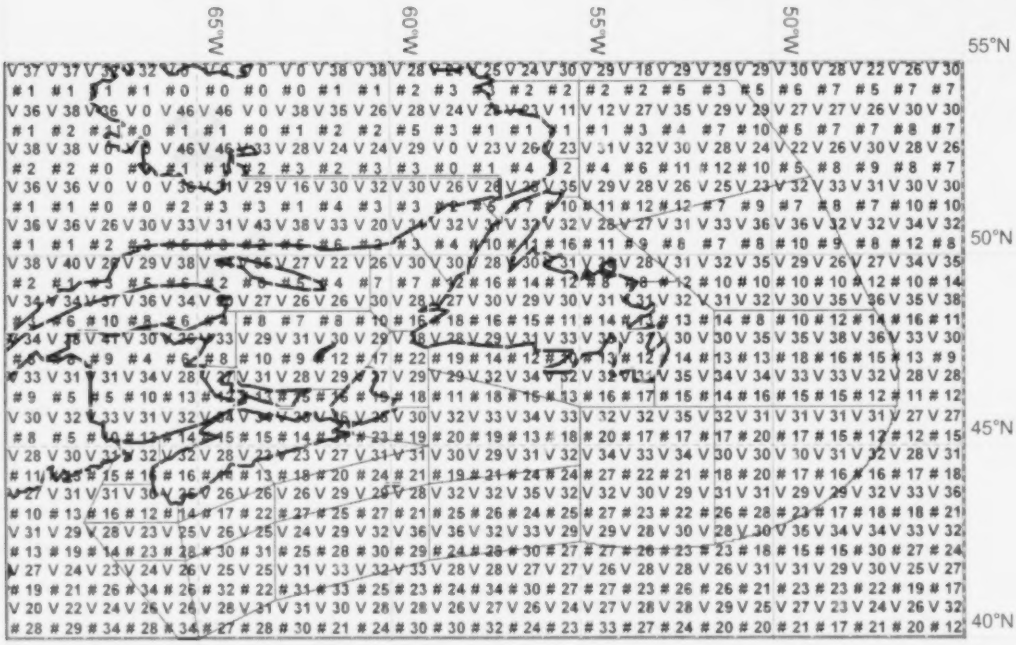
50°N
45°N
40°N

Saffir Simpson level IV storms (114-135 knots) Atlantic Canada (1901–2000)


65°W
60°W
55°W
50°W
55°N
50°N
45°N
40°N

Saffir Simpson level IV storms (114-135 knots) Atlantic Canada (1951–2000)

No SS5 level hurricanes were reported within the Atlantic Canada study area during the 20th century.

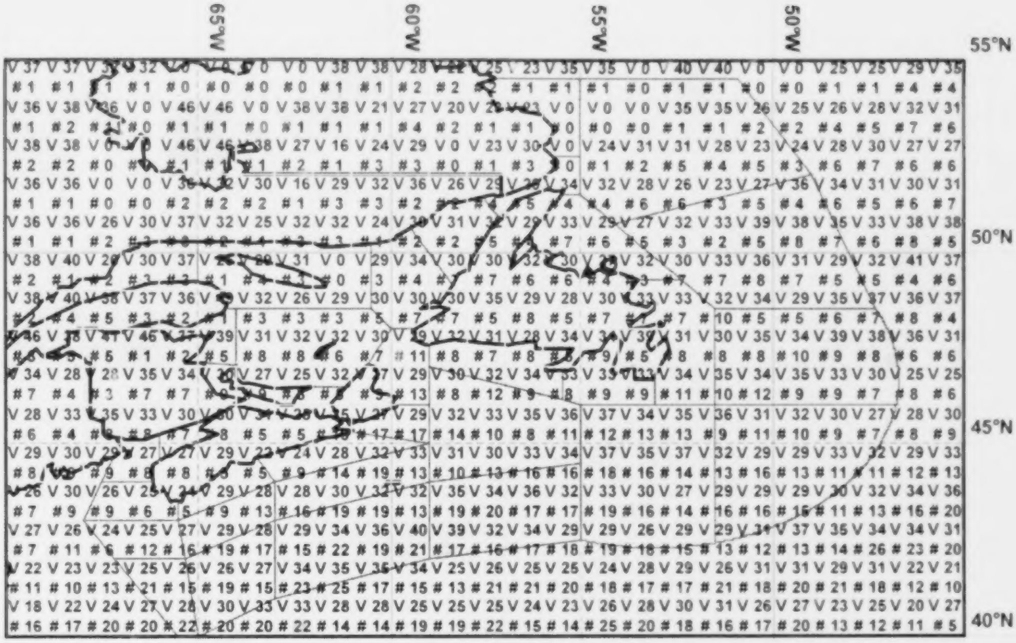


Average translation speed (knots) over total storms (all intensities)
Atlantic Canada (1901–2000)

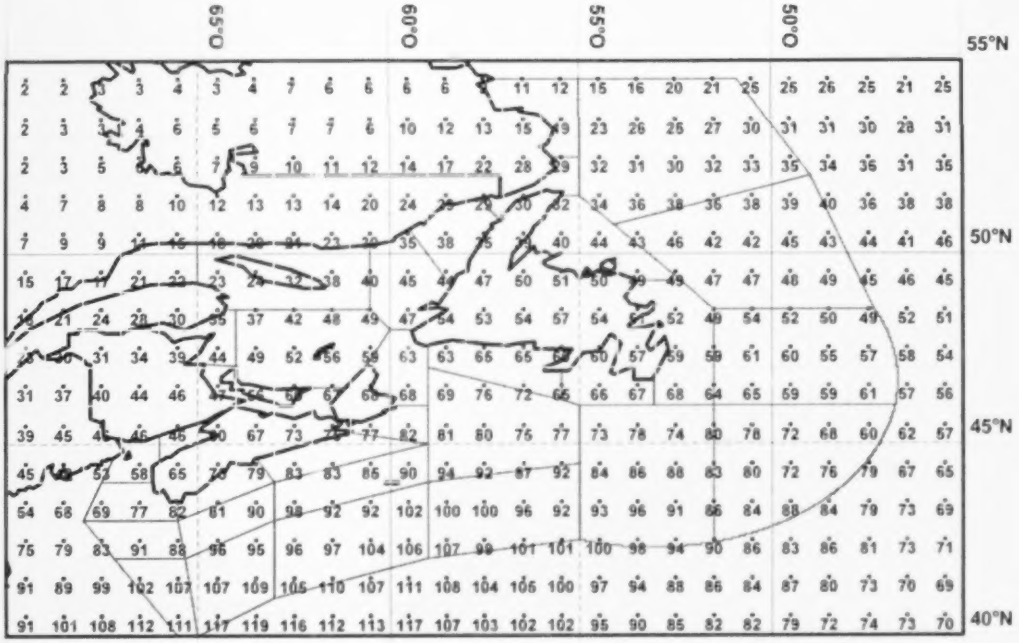
V = Storm translation speed in knots

# = Total number of storms to cross the cell (all intensities)

The high average translation speeds displayed on the northwest quadrant of the map have been heavily influenced by the small number of fast moving storms in that area.



Average translation speed (knots) over total storms (all intensities)
Atlantic Canada (1951–2000)
V = Storm translation speed in knots
# = Total number of storms to cross the cell (all intensities)
The high average translation speeds displayed on the northwest quadrant of the map have been heavily influenced by the small number of fast moving storms in that area.


65°O
60°O
55°O
50°O
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50°N
45°N
40°N
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4 7 8 8 10 12 13 13 14 20 24 29 30 32 34 36 38 36 38 39 40 36 38 38
7 9 9 11 16 18 20 21 23 35 38 40 44 43 46 42 42 45 43 44 41 46
15 17 17 21 22 23 24 32 38 40 45 44 47 50 51 50 49 49 47 47 48 49 45 46 45
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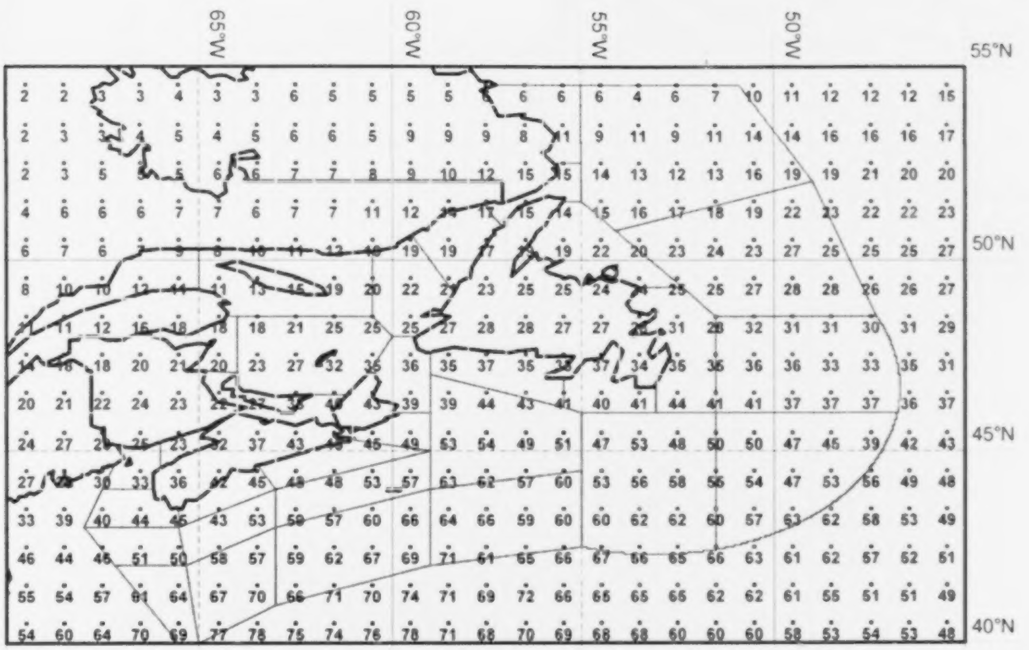
54 68 69 77 82 81 90 98 92 92 102 100 100 96 92 93 96 91 86 84 88 84 79 73 69
75 79 83 91 88 96 95 96 97 104 106 107 99 101 101 100 98 94 90 86 83 86 81 73 71
91 89 99 102 107 107 109 105 110 107 111 108 104 106 100 97 94 88 86 84 87 80 73 70 69
91 101 108 112 111 117 119 116 112 113 117 107 103 102 102 95 90 85 82 82 79 72 74 73 70

All tropical storms passing within 260 km of the cell centre (1901–2000)

The figure above shows the total number of tropical storms of all intensities that passed within 260 km of the one degree cell centre. The numbers are in excellent agreement with the original regional paper by Barks and Richards (appendix II) which covered a period of 35 years from 1949 to 1983. Totals above are for a 100 year period (1901–2000) and are about 3 times as large.


65°W
60°W
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40°N
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2 3 3 4 5 4 5 6 6 5 9 9 9 8 11 9 11 9 11 14 14 16 16 16 17
2 3 5 5 5 6 6 7 7 8 9 10 12 15 15 14 13 12 13 16 19 19 21 20 20
4 6 6 6 7 7 6 7 7 11 12 14 17 15 14 15 16 17 18 19 22 23 22 22 23
6 7 6 7 9 8 10 11 12 16 19 19 17 [illegible] 19 22 20 23 24 23 27 25 25 25 27
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11 11 12 16 18 18 18 21 25 25 25 27 28 28 27 27 [illegible] 31 28 32 31 31 30 31 29
14 16 18 20 21 20 23 27 32 35 36 35 37 35 38 37 34 35 36 36 36 33 33 35 31
20 21 22 24 23 22 27 [illegible] [illegible] 43 39 39 44 43 41 40 41 44 41 41 37 37 37 36 37
24 27 [illegible] 25 23 32 37 43 [illegible] 45 49 53 54 49 51 47 53 48 50 50 47 45 39 42 43
27 [illegible] 30 33 36 42 45 48 48 53 57 63 62 57 60 53 56 58 56 54 47 53 56 49 48
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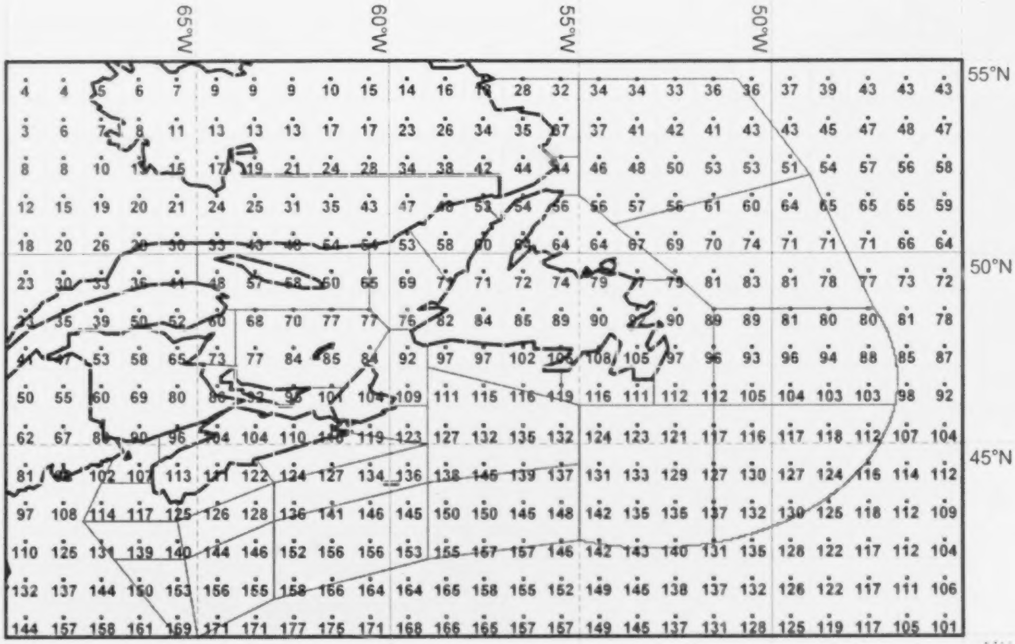
55 54 57 61 64 67 70 66 71 70 74 71 69 72 66 66 65 65 62 62 61 55 51 51 49
54 60 64 70 69 77 78 75 74 76 78 71 68 70 69 68 68 60 60 60 58 53 54 53 48

All tropical storms passing within 260 km of the cell centre (1951–2000)

The figure above shows the total number of tropical storms of all intensities that passed within 260 km of the one degree cell centre. Again, the numbers are in excellent agreement with the original regional paper by Barks and Richards (appendix II) which covered a period of 35 years from 1949 to 1983. Totals above are for a 50 year period (1951–2000).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50°W
55°N
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4 4 5 6 7 9 9 9 10 15 14 16 18 28 32 34 34 33 36 36 37 39 43 43 43
3 6 7 8 11 13 13 13 17 17 23 26 34 35 37 37 41 42 41 43 43 45 47 48 47
8 8 10 15 15 17 19 21 24 28 34 38 42 44 44 46 48 50 53 53 51 54 57 56 58
12 15 19 20 21 24 25 31 35 43 47 48 53 54 56 56 57 56 61 60 64 65 65 65 59
18 20 26 30 30 33 43 48 54 54 53 58 60 62 64 64 67 69 70 74 71 71 71 66 64
23 30 33 36 41 48 57 58 60 65 69 77 71 72 74 79 77 79 81 83 81 78 77 73 72
31 35 39 50 52 60 68 70 77 77 76 82 84 85 89 90 92 90 89 89 81 80 80 81 78
41 47 53 58 65 73 77 84 85 84 92 97 97 102 106 108 105 97 96 93 96 94 88 85 87
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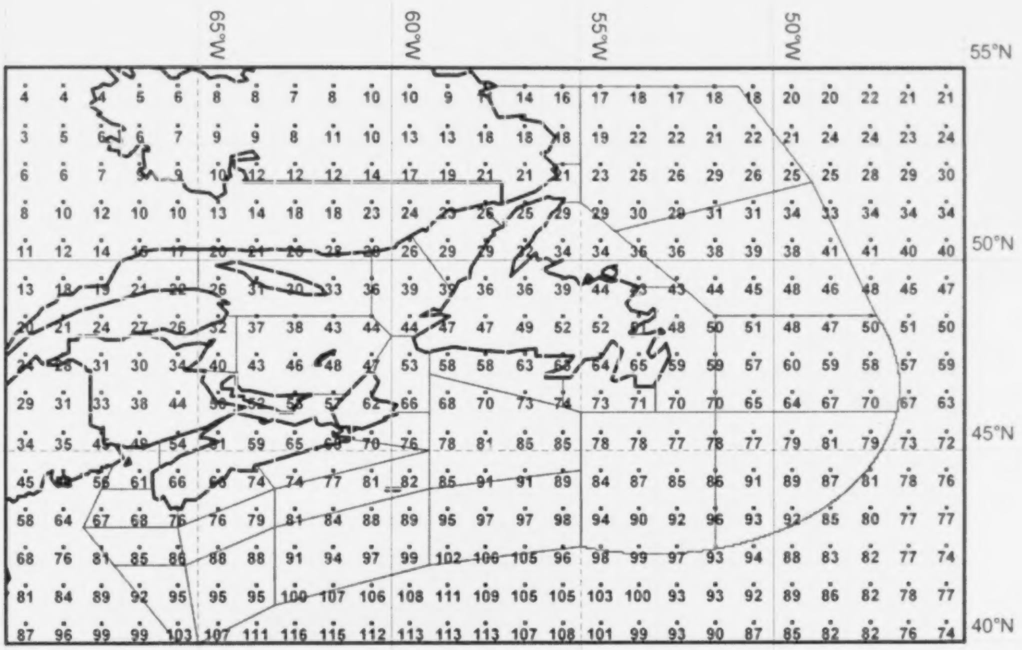
132 137 144 150 153 156 155 158 166 164 164 165 158 155 152 149 145 138 137 132 126 122 117 111 106
144 157 158 161 169 171 171 177 175 171 168 166 165 157 157 149 145 137 131 128 125 119 117 105 101

All tropical storms passing within 400 km of the cell centre (1901–2000)

The figure above shows the total number of tropical storms of all intensities that passed within 400 km of the one degree cell centre. The numbers are in excellent agreement with the original regional paper by Barks and Richards (appendix II) which covered a period of 35 years from 1949 to 1983. Totals above are for a 100 year period (1901–2000) and are about 3 times as large.


65°W
60°W
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50°N
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40°N
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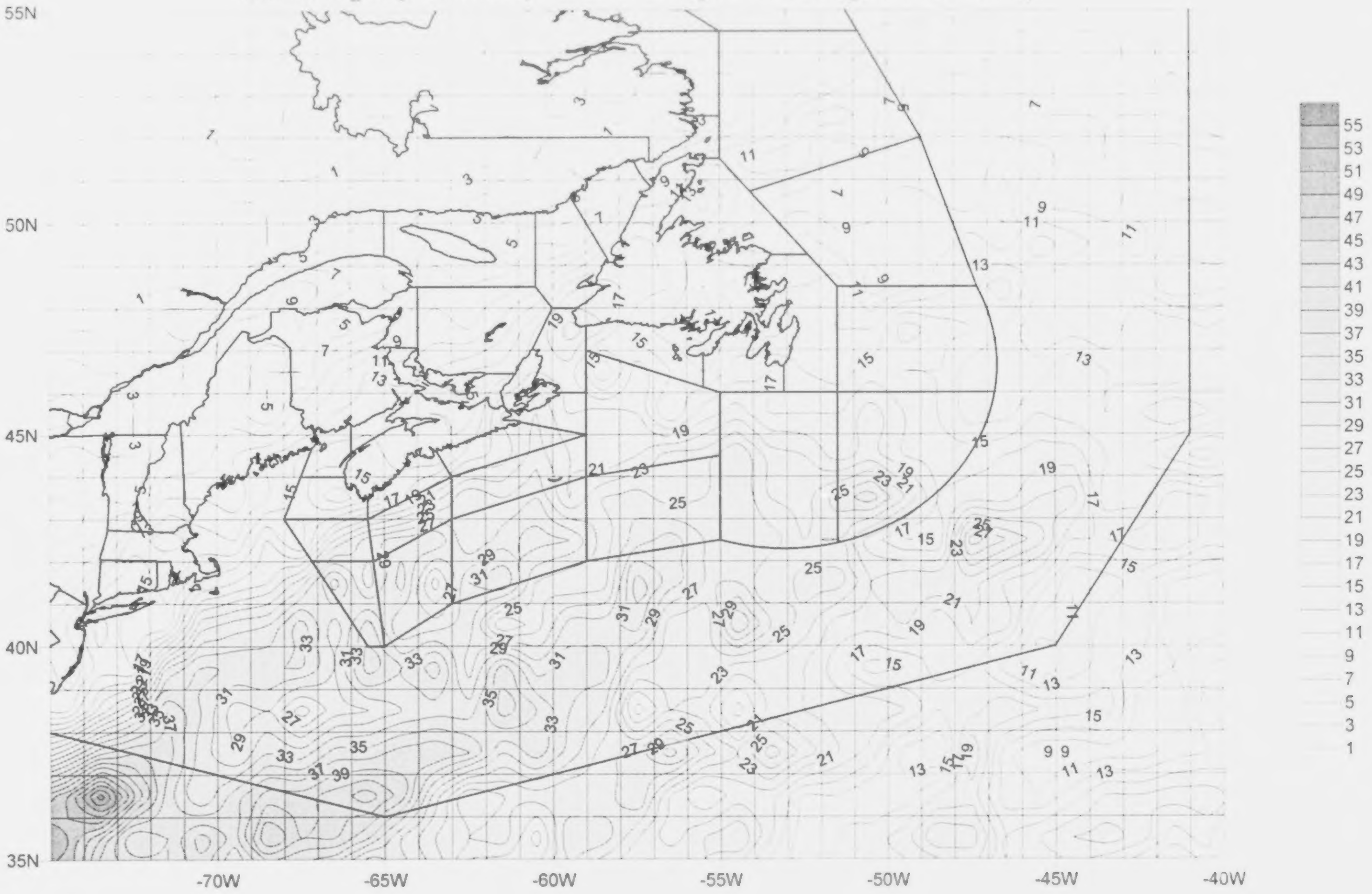
29 31 33 38 44 50 52 55 57 62 66 68 70 73 74 73 71 70 70 65 64 67 70 67 63
34 35 45 49 54 61 59 65 68 70 76 78 81 85 85 78 78 77 78 77 79 81 79 73 72
45 48 56 61 66 68 74 74 77 81 82 85 91 91 89 84 87 85 86 91 89 87 81 78 76
58 64 67 68 76 76 79 81 84 88 89 95 97 97 98 94 90 92 96 93 92 85 80 77 77
68 76 81 85 86 88 88 91 94 97 99 102 106 105 96 98 99 97 93 94 88 83 82 77 74
81 84 89 92 95 95 95 100 107 106 108 111 109 105 105 103 100 93 93 92 89 86 82 78 77
87 96 99 99 103 107 111 116 115 112 113 113 113 107 108 101 99 93 90 87 85 82 82 76 74

All tropical storms passing within 400 km of the cell centre (1951–2000)

Atlantic Canada Sub-Grid Contour Maps

Contour maps were generated for the sub-grid in the same manner as done for the full North Atlantic basin… see the earlier description and cautions.

Atlantic Region (1901 to 2000) - Count of all tropical storms, regardless of intensity


55N
50N
45N
40N
35N
-70W
-65W
-60W
-55W
-50W
-45W
-40W
55
53
51
49
47
45
43
41
39
37
35
33
31
29
27
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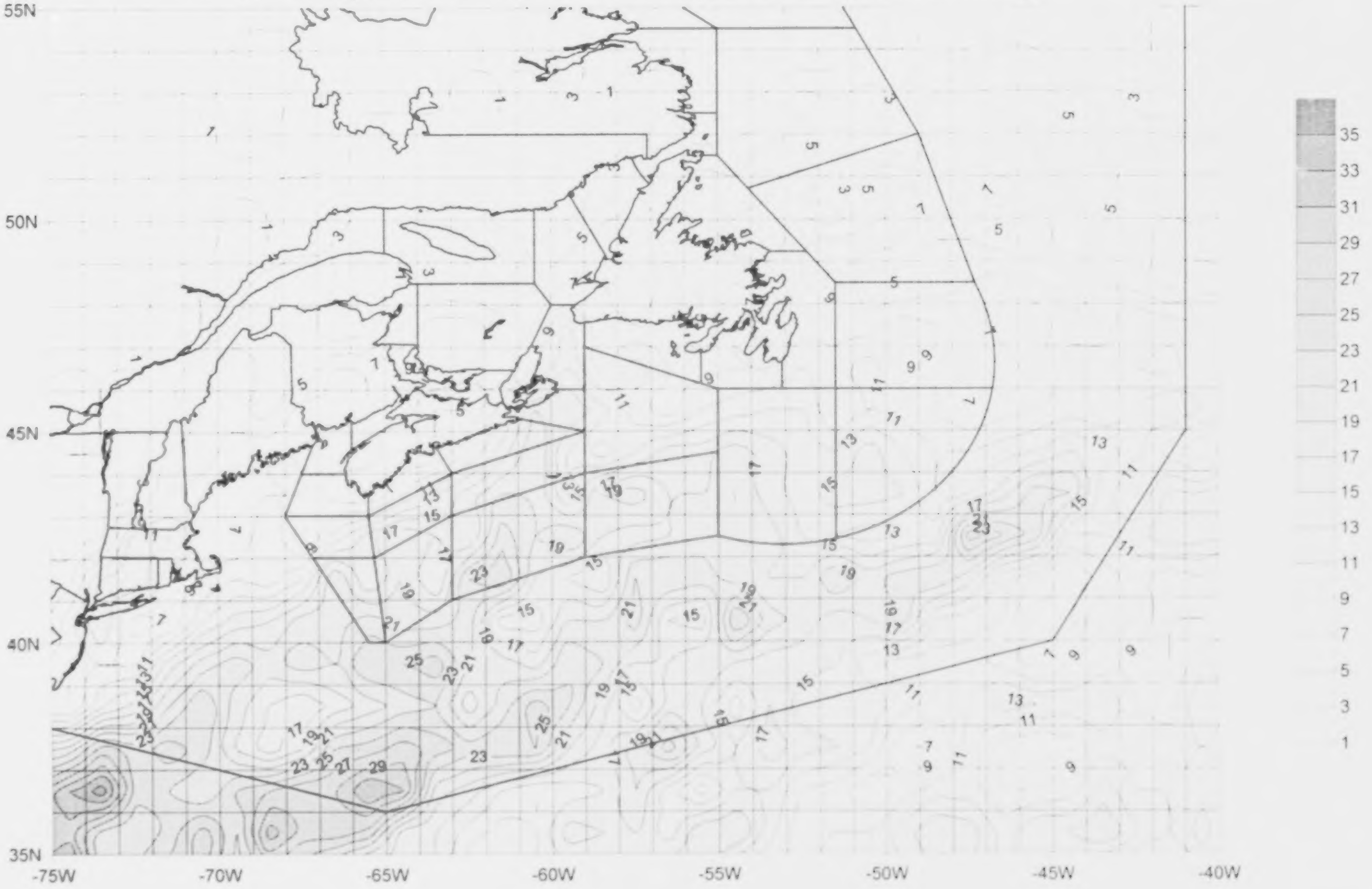
23
21
19
17
15
13
11
9
7
5
3
1

Atlantic Region (1951 to 2000) - Count of all tropical storms, regardless of intensity


55N
50N
45N
40N
35N
-75W
-70W
-65W
-60W
-55W
-50W
-45W
-40W
35
33
31
29
27
25
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19
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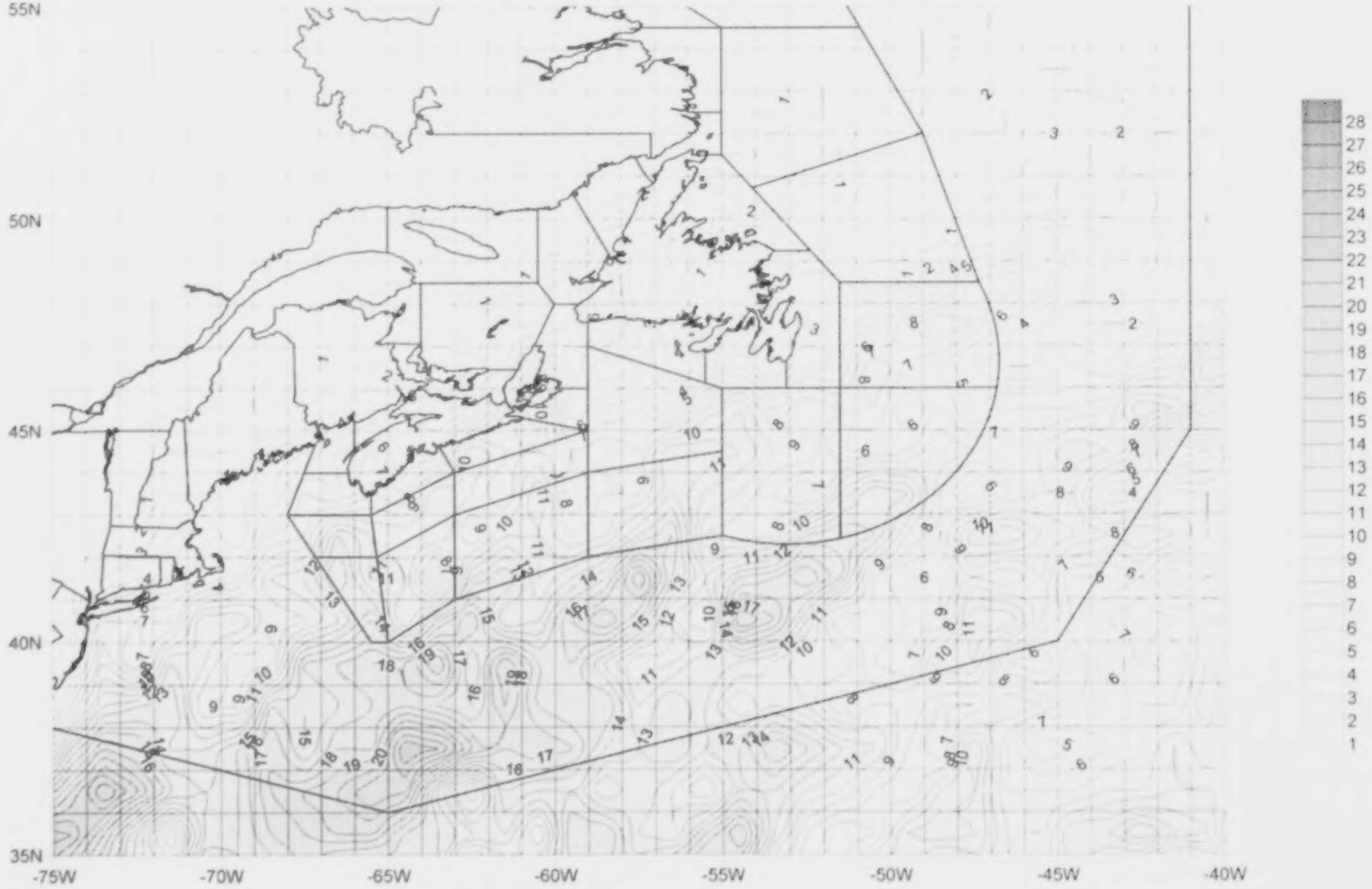
11
9
7
5
3
1

Atlantic Region (1901 to 2000) - Storms of Hurricane Strength (>63 knots)


55N
50N
45N
40N
35N
-75W
-70W
-65W
-60W
-55W
-50W
-45W
-40W
28
27
26
25
24
23
22
21
20
19
18
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16
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14
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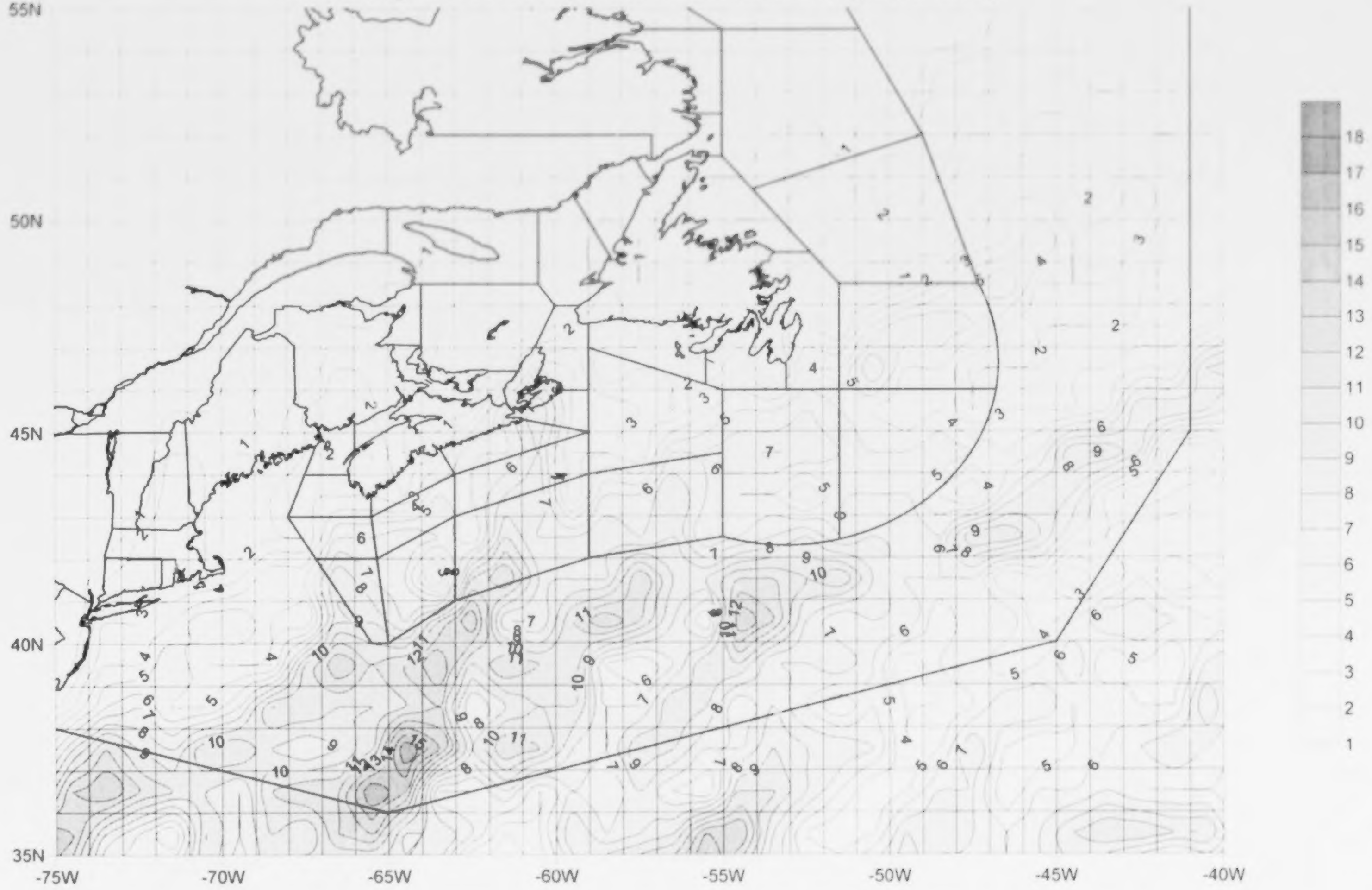
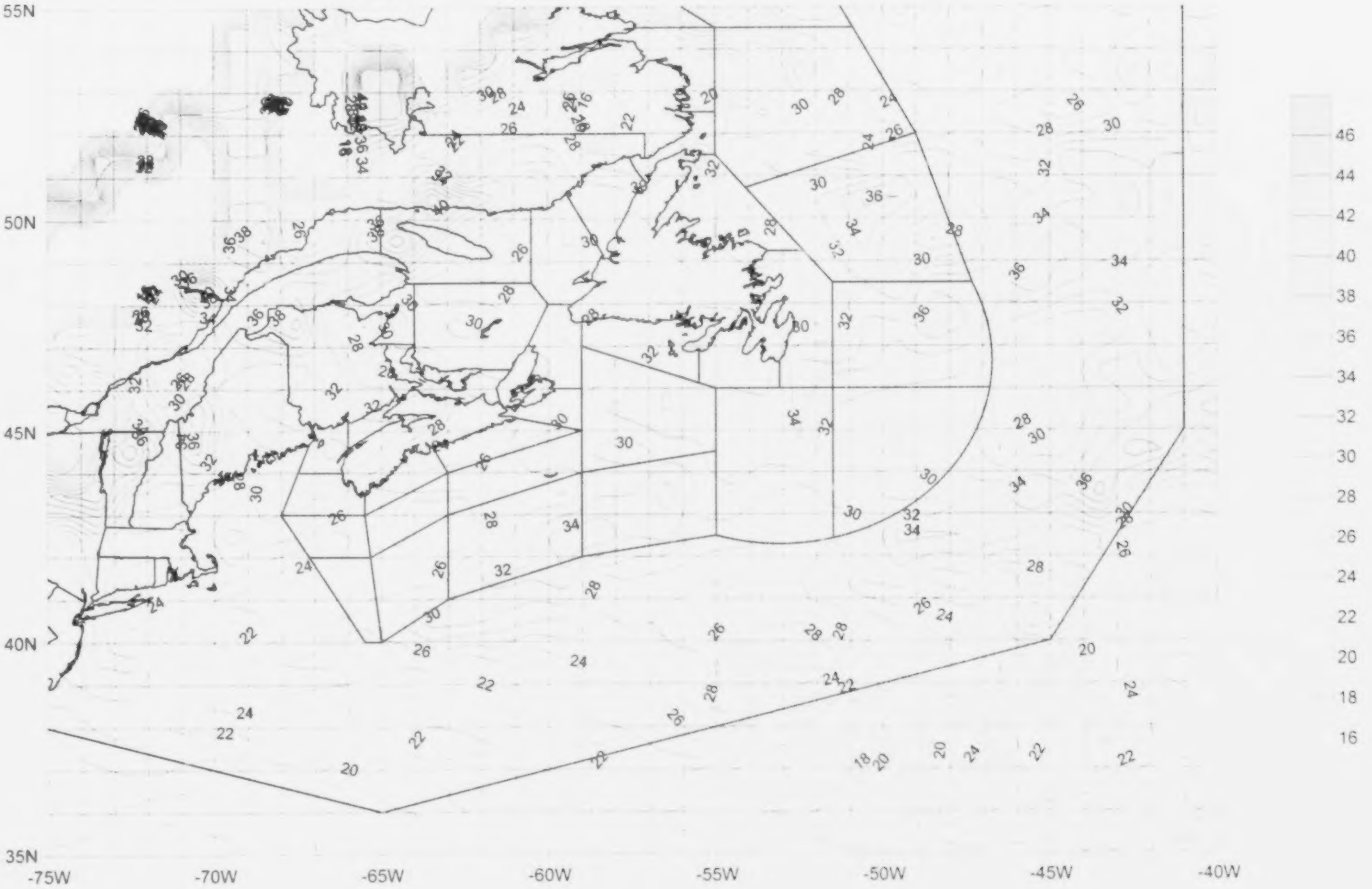
6
5
4
3
2
1

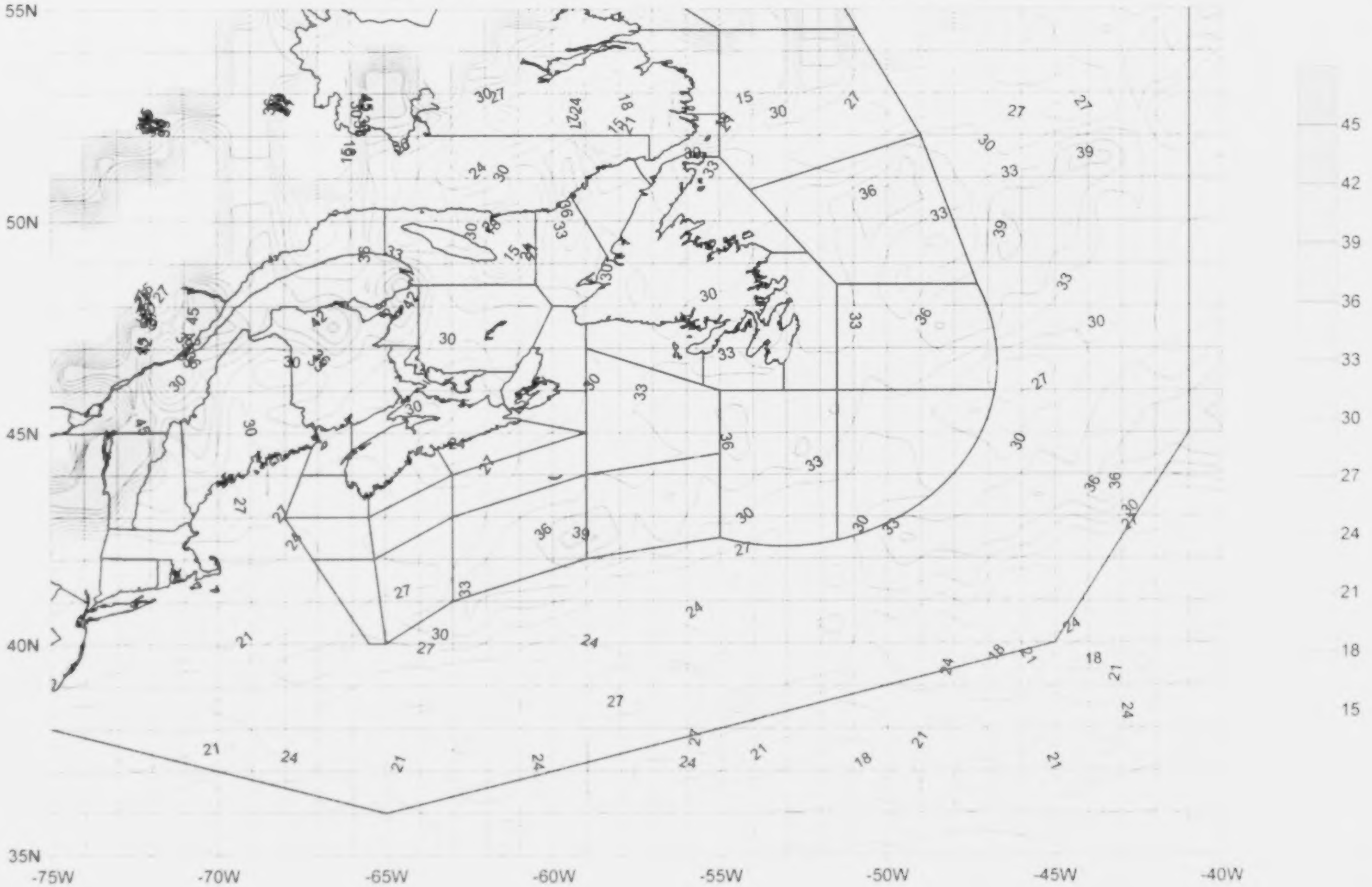
Atlantic Region (1951 to 2000) - Storms of Hurricane Strength (>63 knots)


55N
50N
45N
40N
35N
-75W
-70W
-65W
-60W
-55W
-50W
-45W
-40W
18
17
16
15
14
13
12
11
10
9
8
7
6
5
4
3
2
1

Atlantic Region (1901 to 2000) - Average System Translation Speed (knots)


55N
50N
45N
40N
35N
-75W
-70W
-65W
-60W
-55W
-50W
-45W
-40W
46
44
42
40
38
36
34
32
30
28
26
24
22
20
18
16

Atlantic Region (1951 to 2000) - Average System Translation Speed (knots)


55N
50N
45N
40N
35N
-75W
-70W
-65W
-60W
-55W
-50W
-45W
-40W
45
42
39
36
33
30
27
24
21
18
15

- **See Appendix III for a full tabular listing of all cell, 260 km radius and 400 km radius statistics for the Atlantic Canada sub-grid.**

- **See Appendix IV for detailed cell statistics for the entire North Atlantic basin.**

GRID STATISTICS - 2° LATITUDE BY 2° LONGITUDE CELLS

The one-degree grid cell contour maps in the preceding section could be considered 'noisy' and some of the detail in the original grid analysis could be related to the small grid-size itself. There is also the inherent limitation of using a grid based upon a fixed degree size in that the area of a grid cell changes as one moves from south to north. Effectively, this means that a storm count further north is more significant than the same count further south.

Example: 1° x 1° degree cells at different latitudes:

Cell 1	14°N-16°N	47,773 km^2
Cell 2	40°N-42°N	37,323 km^2

Ratio of areas = 47,773 / 37,323 = 1.28

A storm count of 10 in each cell actually represents an *effective* count of 10 * 1.28 = 12.8 over the northern cell.

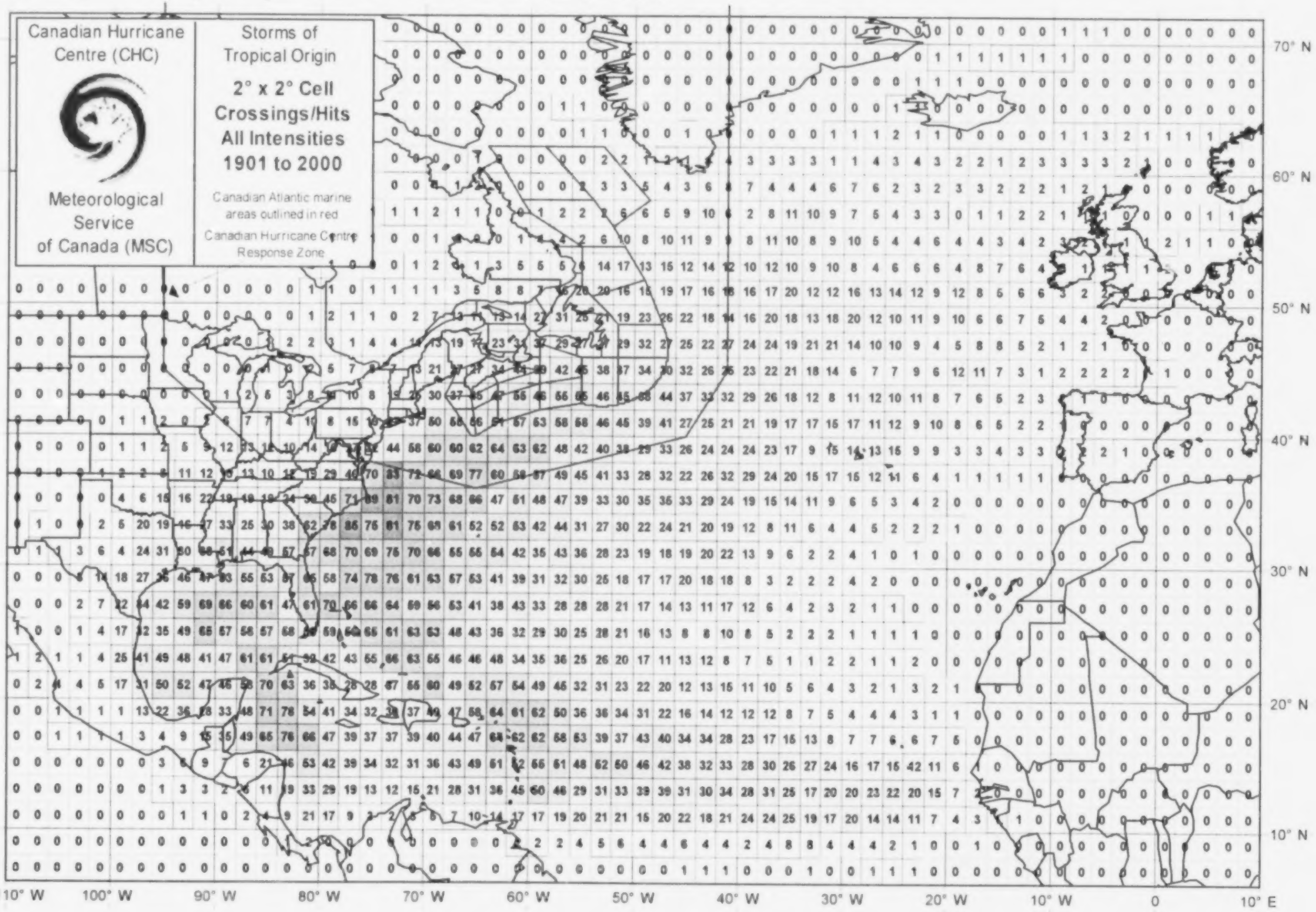
It was decided to reanalyze the data based upon a 2° x 2° grid and to add additional charts that attempt to address the issue of the changing cell areas over the grid extent. The 36 maps that follow attempt to provide a thorough review of this topic. The maps are arranged as shown below:

1901 to 2000
  All Intensities
    Range Map crossings/hits per cell 06°N to 72°N 10°E to 110°W
    Contour Map crossings/hits per cell 10°N to 60°N 40° to 100°W
    Contour Map (zoom) crossings/hits per cell 30°N to 60°N 40° to 80°W
    Range Map crossings/hits per 1000 km2 06°N to 72°N 10°E to 110°W
    Contour Map crossings/hits per 1000 km2 10°N to 60°N 40° to 100°W
    Contour Map (zoom) crossings/hits per 1000 km2 30°N to 60°N 40° to 80°W
  Hurricane Force Storms (SS1-5)
    Six charts above are repeated
  Intense Hurricane Force Storms (SS3-5)
    Six charts above are repeated
1951 to 2000
  All Intensities
    Six charts above are repeated
  Hurricane Force Storms (SS1-5)
    Six charts above are repeated
  Intense Hurricane Force Storms (SS3-5)
    Six charts above are repeated

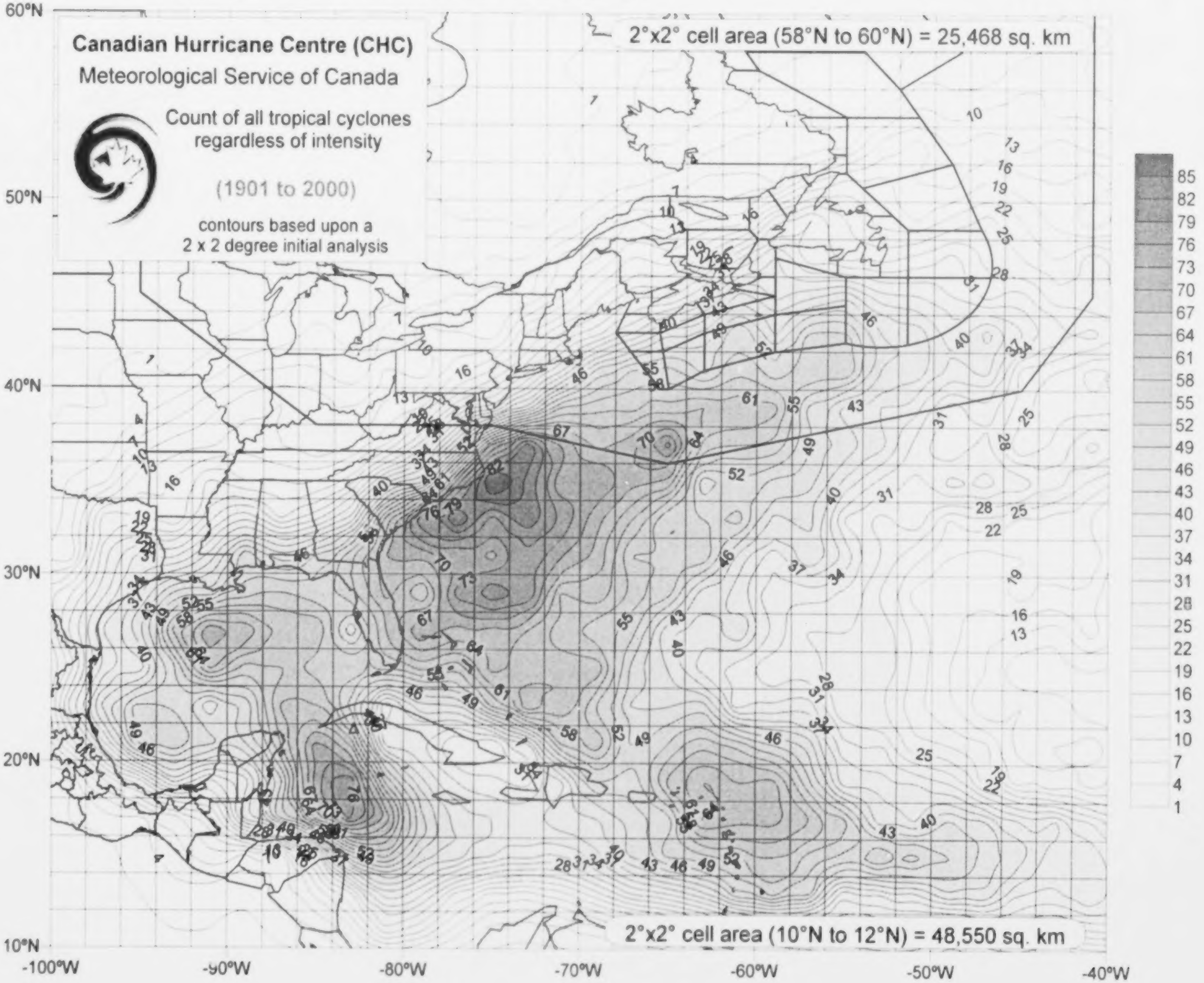
MAPS: Frequency Ranges and Contours (2°x 2° grid)

1901 to 2000 - All Intensities

Range Map - crossings/hits per cell - 06°N to 72°N - 10°E to 110°W


Canadian Hurricane Centre (CHC)
Meteorological Service of Canada (MSC)
Storms of Tropical Origin
2° x 2° Cell Crossings/Hits All Intensities 1901 to 2000
Canadian Atlantic marine areas outlined in red
Canadian Hurricane Centre Response Zone
70° N
60° N
50° N
40° N
30° N
20° N
10° N
110° W
100° W
90° W
80° W
70° W
60° W
50° W
40° W
30° W
20° W
10° W
0
10° E

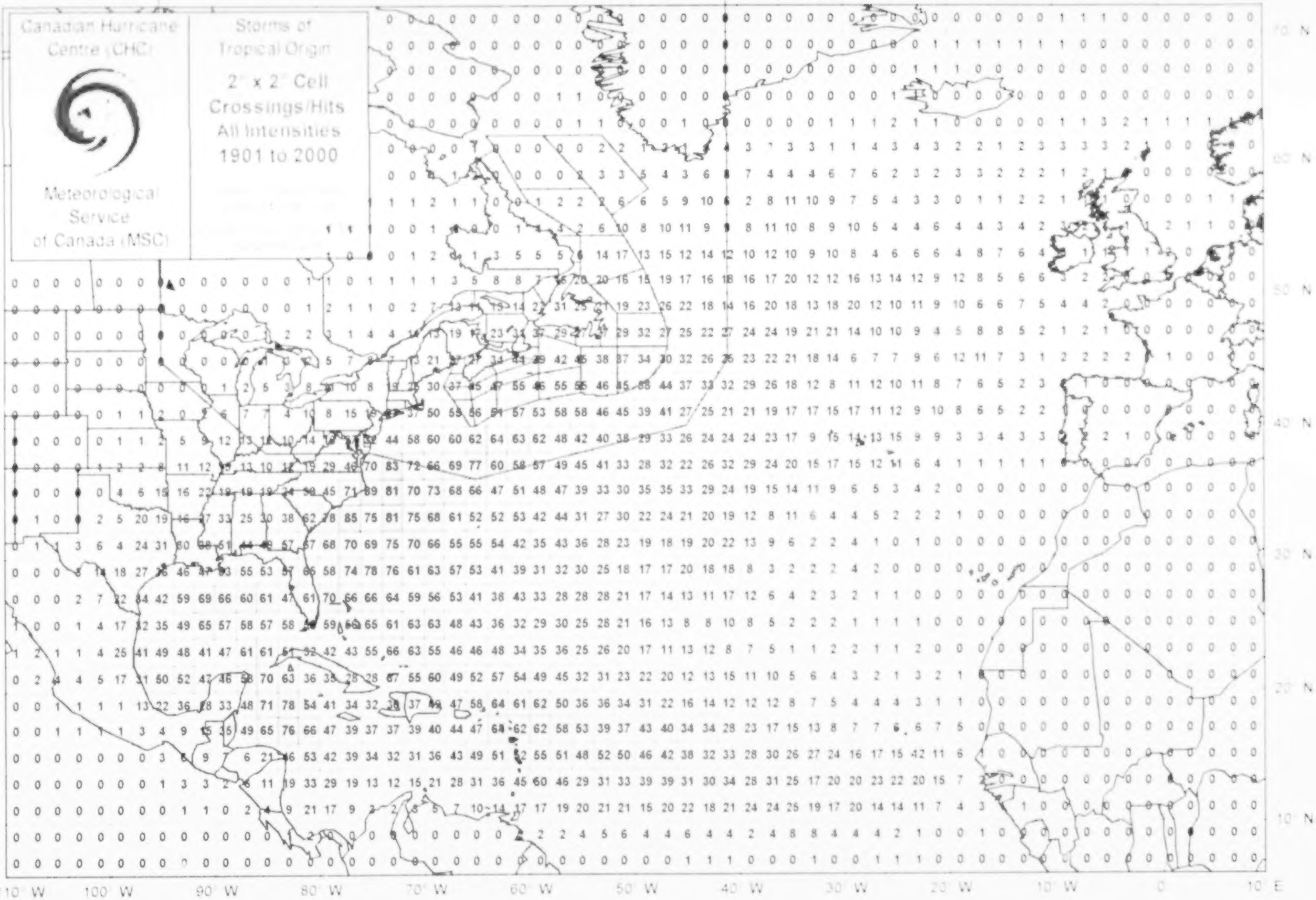
Contour Map - crossings/hits per cell 10°N to 60°N - 40°W to 100°W


Canadian Hurricane Centre (CHC)
Meteorological Service of Canada
Count of all tropical cyclones regardless of intensity
(1901 to 2000)
contours based upon a 2 x 2 degree initial analysis
2°x2° cell area (58°N to 60°N) = 25,468 sq. km
2°x2° cell area (10°N to 12°N) = 48,550 sq. km
60°N
50°N
40°N
30°N
20°N
10°N
-100°W
-90°W
-80°W
-70°W
-60°W
-50°W
-40°W
85
82
79
76
73
70
67
64
61
58
55
52
49
46
43
40
37
34
31
28
25
22
19
16
13
10
7
4
1

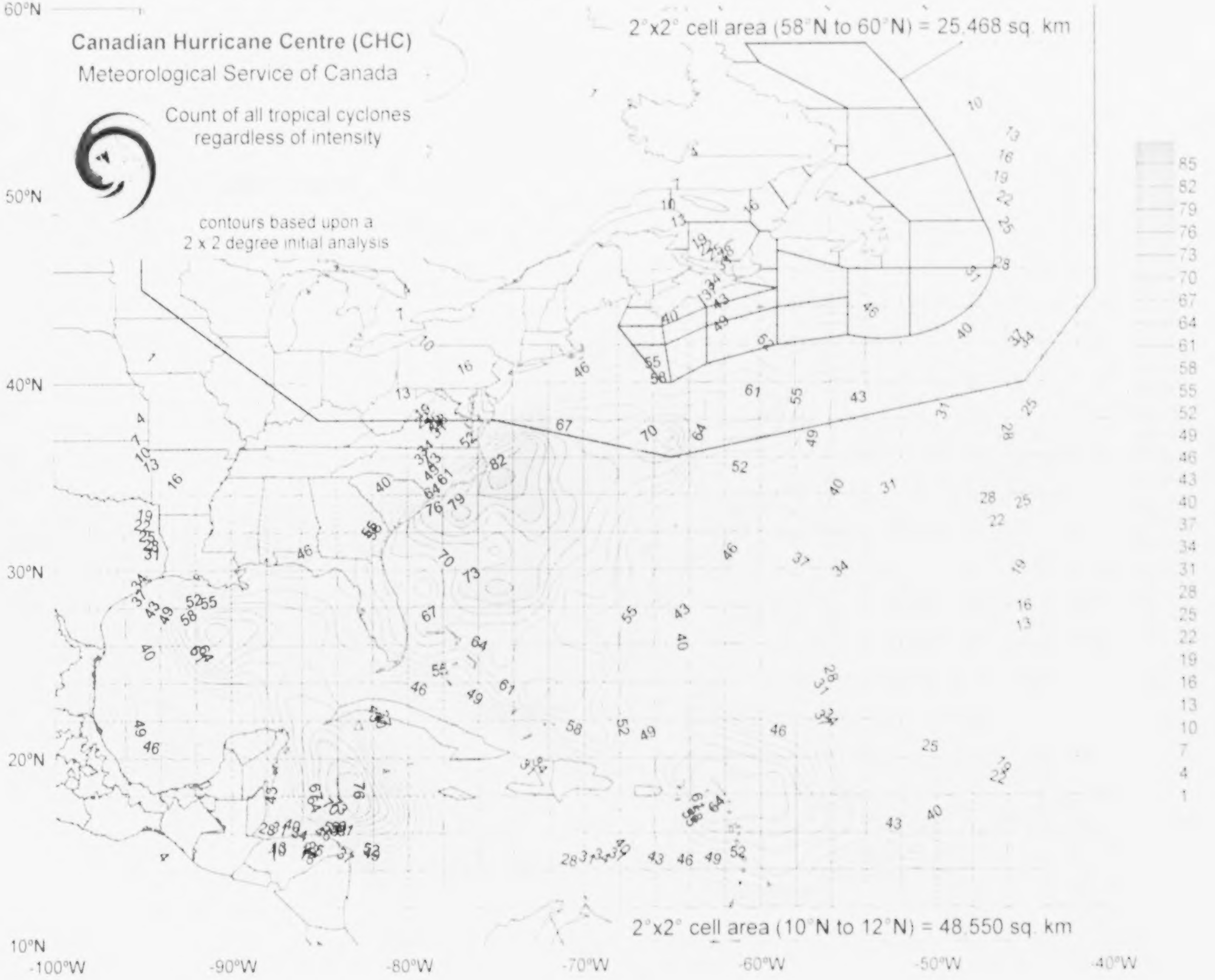
MAPS: Frequency Ranges and Contours (2°x 2° grid)

1901 to 2000 - All Intensities

Range Map - crossings/hits per cell - 06°N to 72°N - 10°E to 110°W


Canadian Hurricane Centre (CHC)
Meteorological Service of Canada (MSC)
Storms of Tropical Origin
2° x 2° Cell Crossings/Hits All Intensities 1901 to 2000
70 N
60 N
50 N
40 N
30 N
20 N
10 N
110 W
100 W
90 W
80 W
70 W
60 W
50 W
40 W
30 W
20 W
10 W
0
10 E

Contour Map - crossings/hits per cell 10°N to 60°N - 40°W to 100°W


Canadian Hurricane Centre (CHC)
Meteorological Service of Canada
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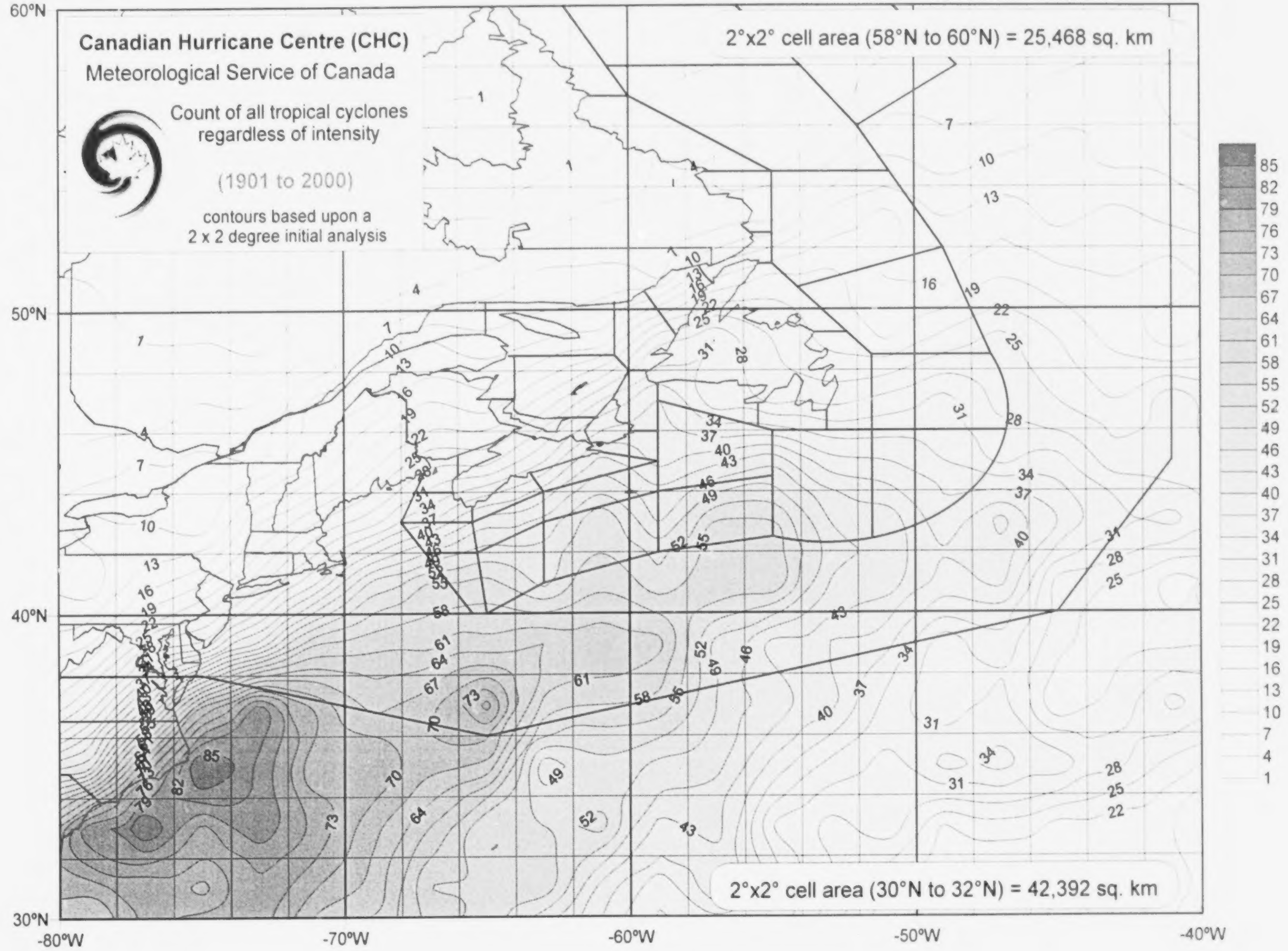
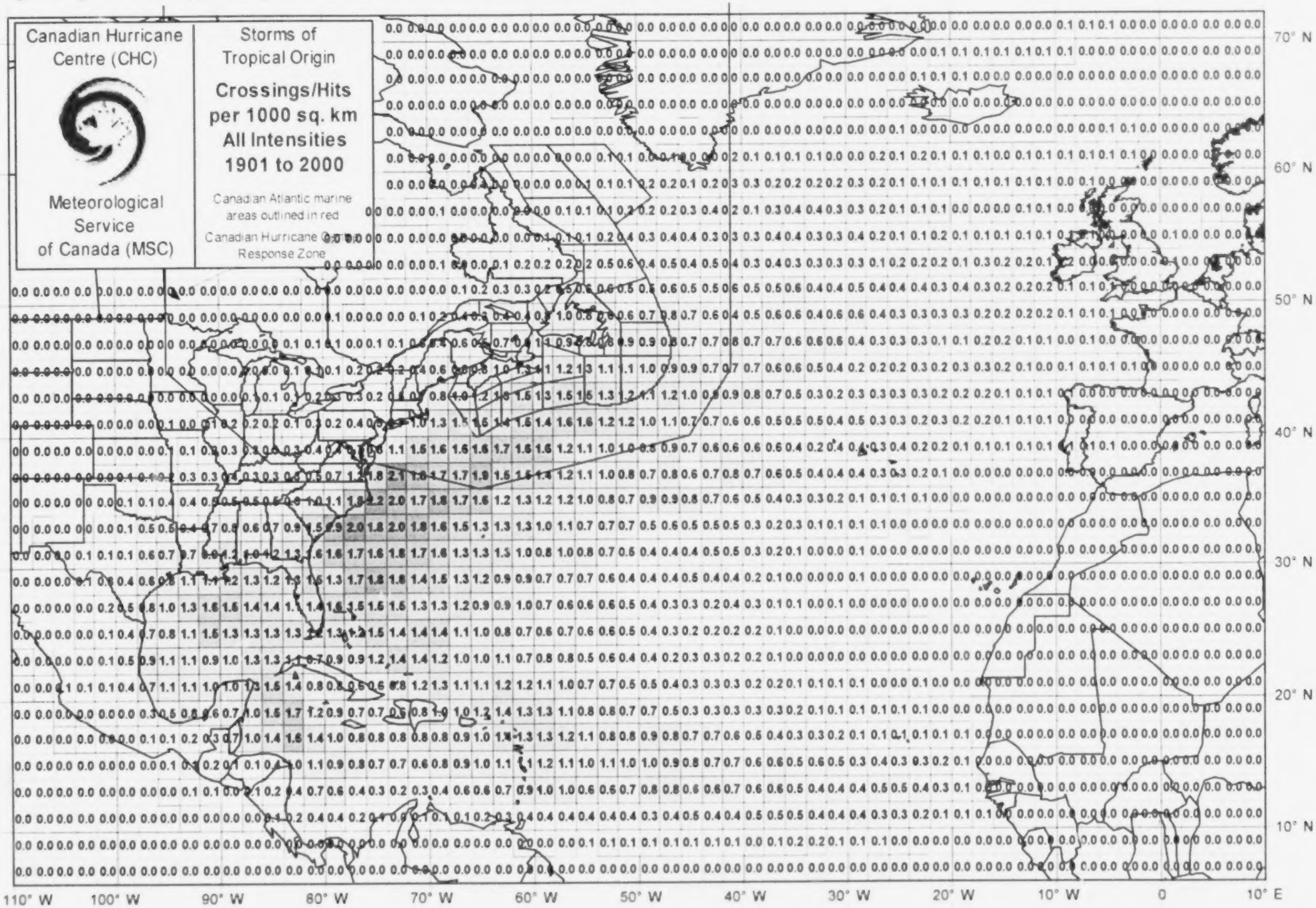
60°N
50°N
40°N
30°N
20°N
10°N
-100°W
-90°W
-80°W
-70°W
-60°W
-50°W
-40°W
85
82
79
76
73
70
67
64
61
58
55
52
49
46
43
40
37
34
31
28
25
22
19
16
13
10
7
4
1

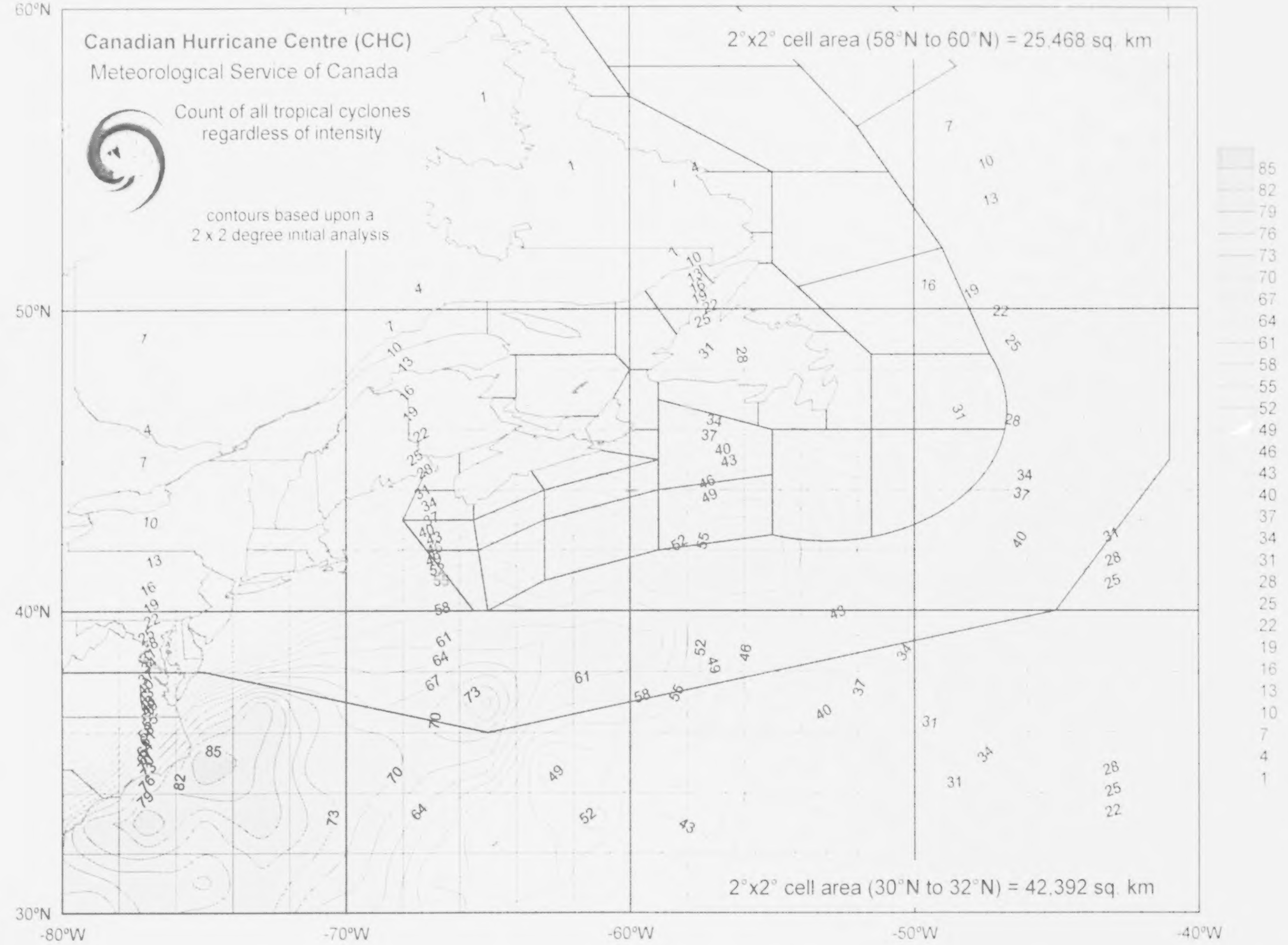
Contour Map (zoom) - crossings/hits per cell 30°N to 60°N - 40°W to 80°W


Canadian Hurricane Centre (CHC)
Meteorological Service of Canada
Count of all tropical cyclones regardless of intensity
(1901 to 2000)
contours based upon a 2 x 2 degree initial analysis
2°x2° cell area (58°N to 60°N) = 25,468 sq. km
2°x2° cell area (30°N to 32°N) = 42,392 sq. km
60°N
50°N
40°N
30°N
-80°W
-70°W
-60°W
-50°W
-40°W
85
82
79
76
73
70
67
64
61
58
55
52
49
46
43
40
37
34
31
28
25
22
19
16
13
10
7
4
1

Range Map - crossings/hits per 1000 km² - 06°N to 72°N - 10°E to 110°W


Canadian Hurricane Centre (CHC)
Meteorological Service of Canada (MSC)
Storms of Tropical Origin
Crossings/Hits per 1000 sq. km
All Intensities
1901 to 2000
Canadian Atlantic marine areas outlined in red
Canadian Hurricane Centre Response Zone
70° N
60° N
50° N
40° N
30° N
20° N
10° N
110° W
100° W
90° W
80° W
70° W
60° W
50° W
40° W
30° W
20° W
10° W
0
10° E

Contour Map (zoom) - crossings/hits per cell 30°N to 60°N - 40°W to 80°W


Canadian Hurricane Centre (CHC)
Meteorological Service of Canada
Count of all tropical cyclones regardless of intensity
contours based upon a 2 x 2 degree initial analysis
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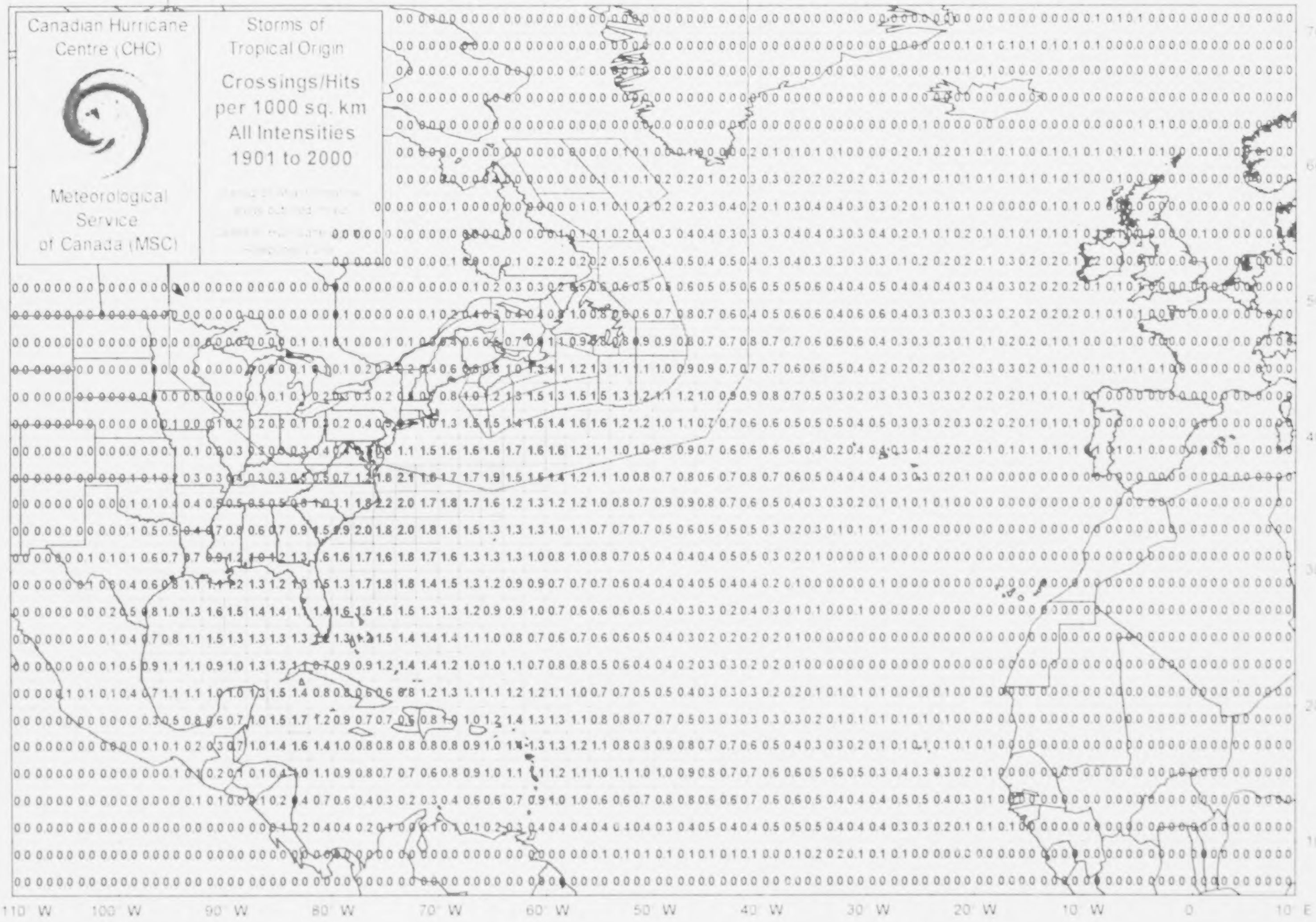
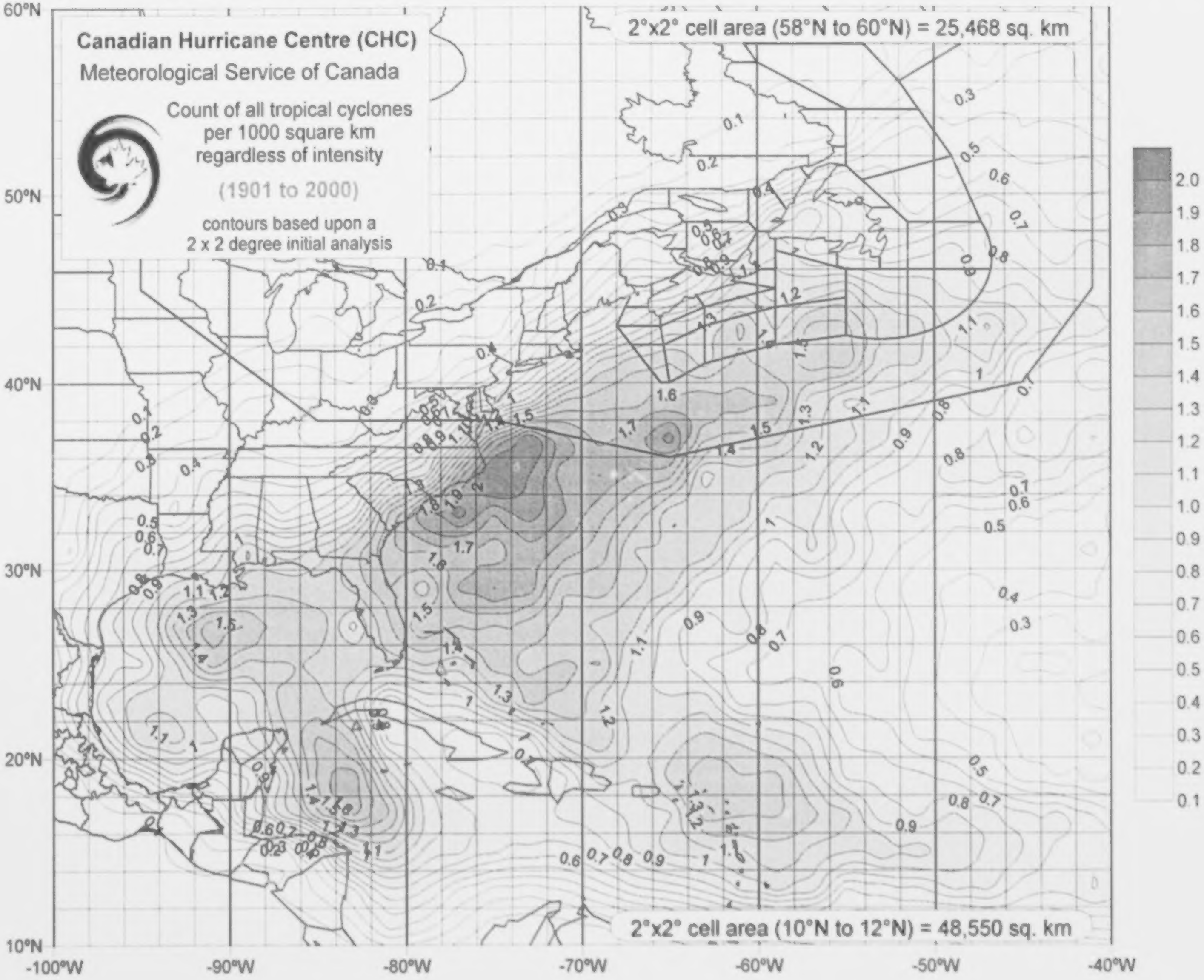
2°x2° cell area (30°N to 32°N) = 42,392 sq. km
60°N
50°N
40°N
30°N
-80°W
-70°W
-60°W
-50°W
-40°W
85
82
79
76
73
70
67
64
61
58
55
52
49
46
43
40
37
34
31
28
25
22
19
16
13
10
7
4
1

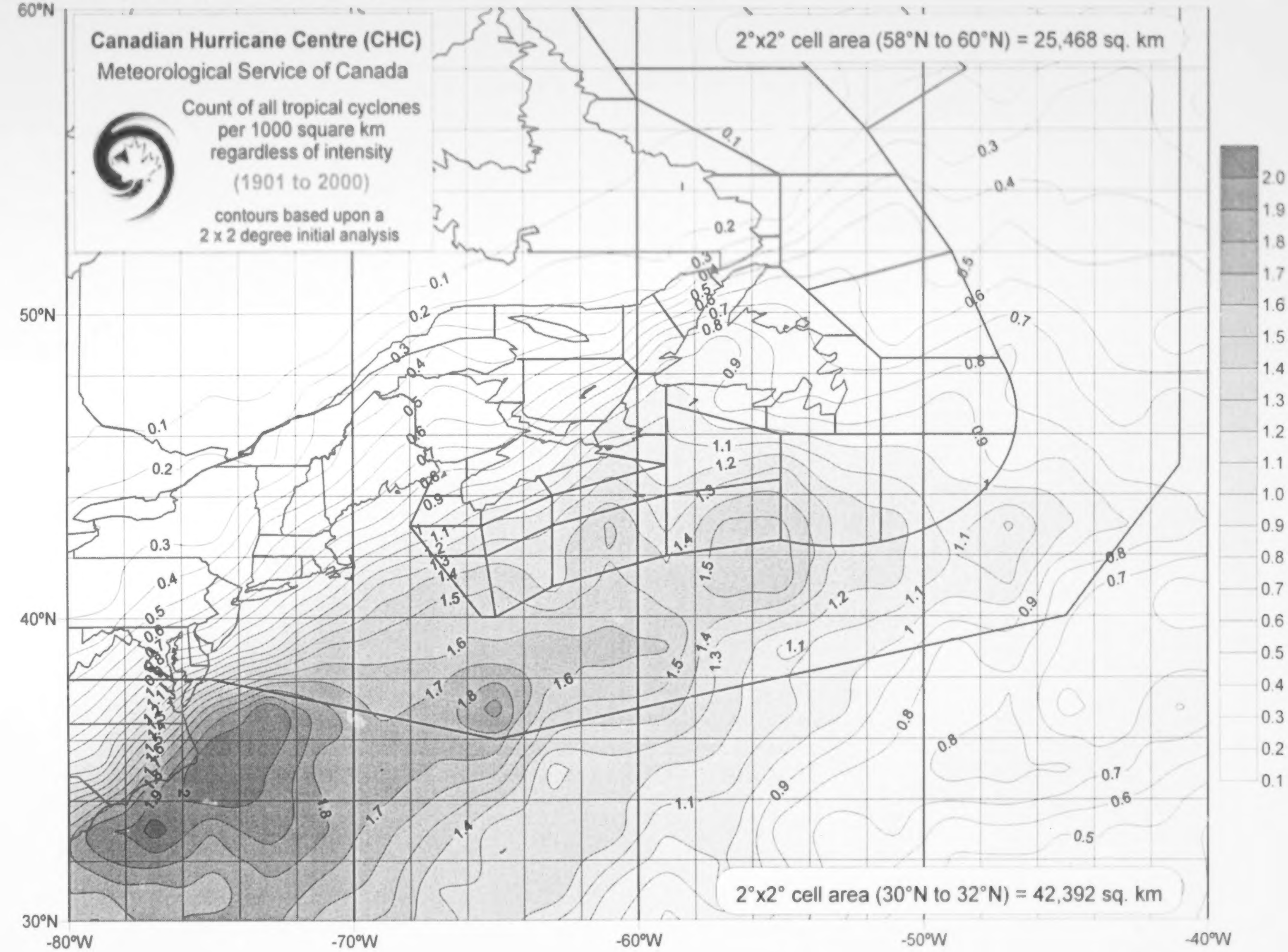
Range Map - crossings/hits per 1000 km^2 - 06°N to 72°N - 10°E to 110°W


Canadian Hurricane Centre (CHC)
Meteorological Service of Canada (MSC)
Storms of Tropical Origin
Crossings/Hits per 1000 sq. km
All Intensities
1901 to 2000
70° N
60° N
50° N
40° N
30° N
20° N
10° N
110° W
100° W
90° W
80° W
70° W
60° W
50° W
40° W
30° W
20° W
10° W
0
10° E

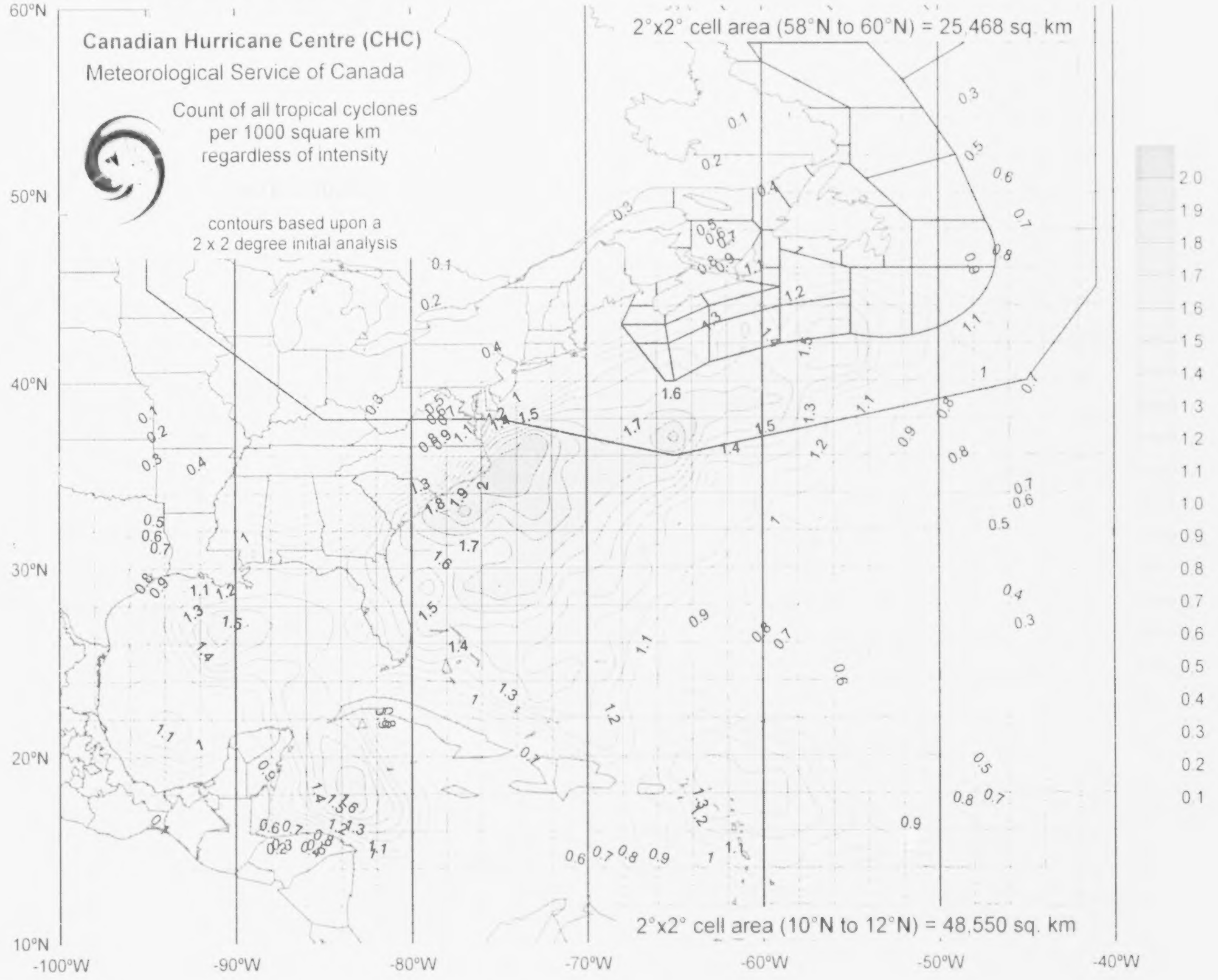
Contour Map - crossings/hits per 1000 km² 10°N to 60°N - 40°W to 100°W


Canadian Hurricane Centre (CHC)
Meteorological Service of Canada
Count of all tropical cyclones per 1000 square km regardless of intensity
(1901 to 2000)
contours based upon a 2 x 2 degree initial analysis
2°x2° cell area (58°N to 60°N) = 25,468 sq. km
2°x2° cell area (10°N to 12°N) = 48,550 sq. km
60°N
50°N
40°N
30°N
20°N
10°N
-100°W
-90°W
-80°W
-70°W
-60°W
-50°W
-40°W
2.0
1.9
1.8
1.7
1.6
1.5
1.4
1.3
1.2
1.1
1.0
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1

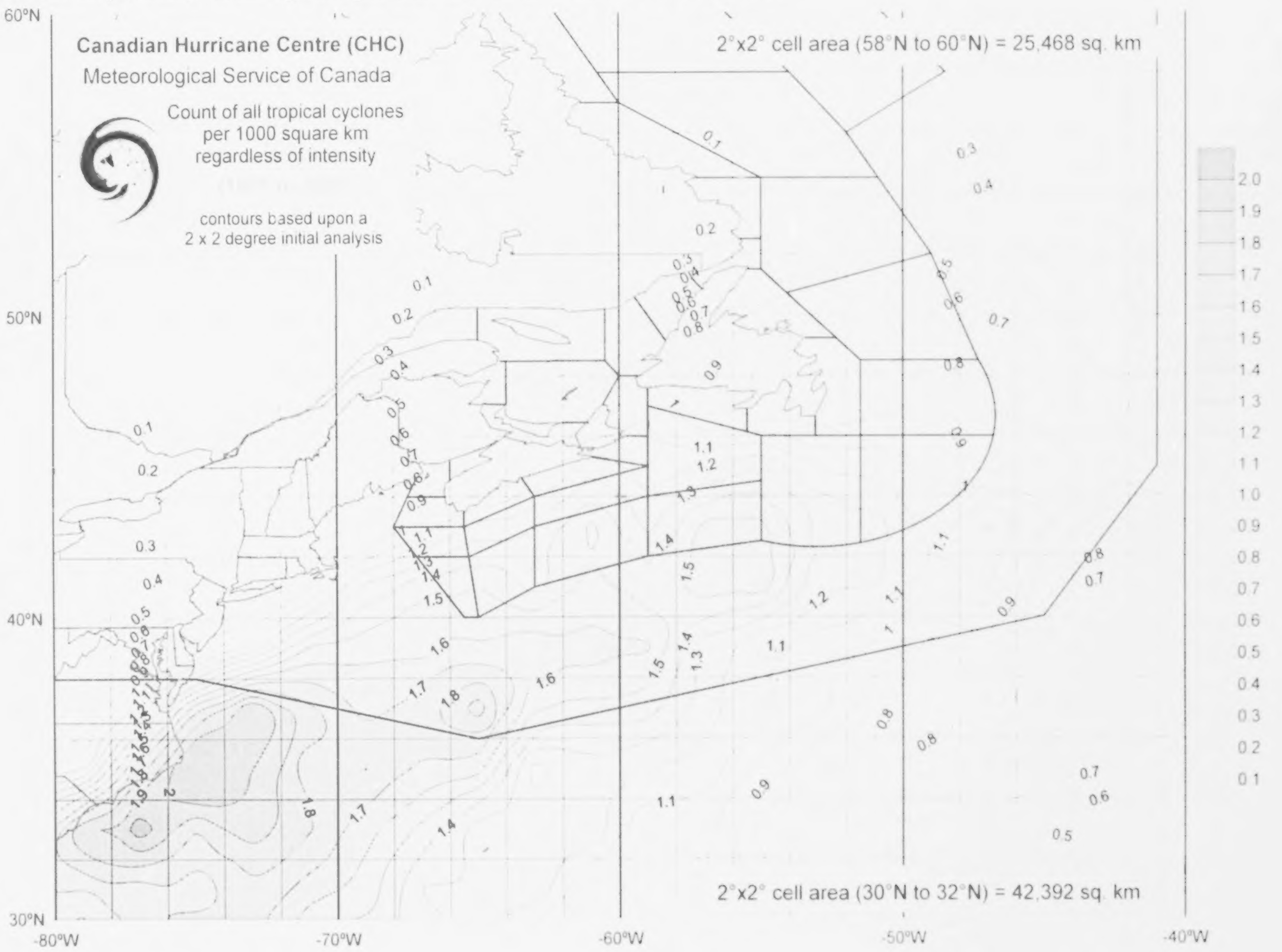
Contour Map (zoom) - crossings/hits per 1000 km^2 30°N to 60°N - 40°W to 80°W


Canadian Hurricane Centre (CHC)
Meteorological Service of Canada
Count of all tropical cyclones per 1000 square km regardless of intensity
(1901 to 2000)
contours based upon a 2 x 2 degree initial analysis
2°x2° cell area (58°N to 60°N) = 25,468 sq. km
2°x2° cell area (30°N to 32°N) = 42,392 sq. km
60°N
50°N
40°N
30°N
-80°W
-70°W
-60°W
-50°W
-40°W
2.0
1.9
1.8
1.7
1.6
1.5
1.4
1.3
1.2
1.1
1.0
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1

Contour Map - crossings/hits per 1000 km^2 10°N to 60°N - 40°W to 100°W

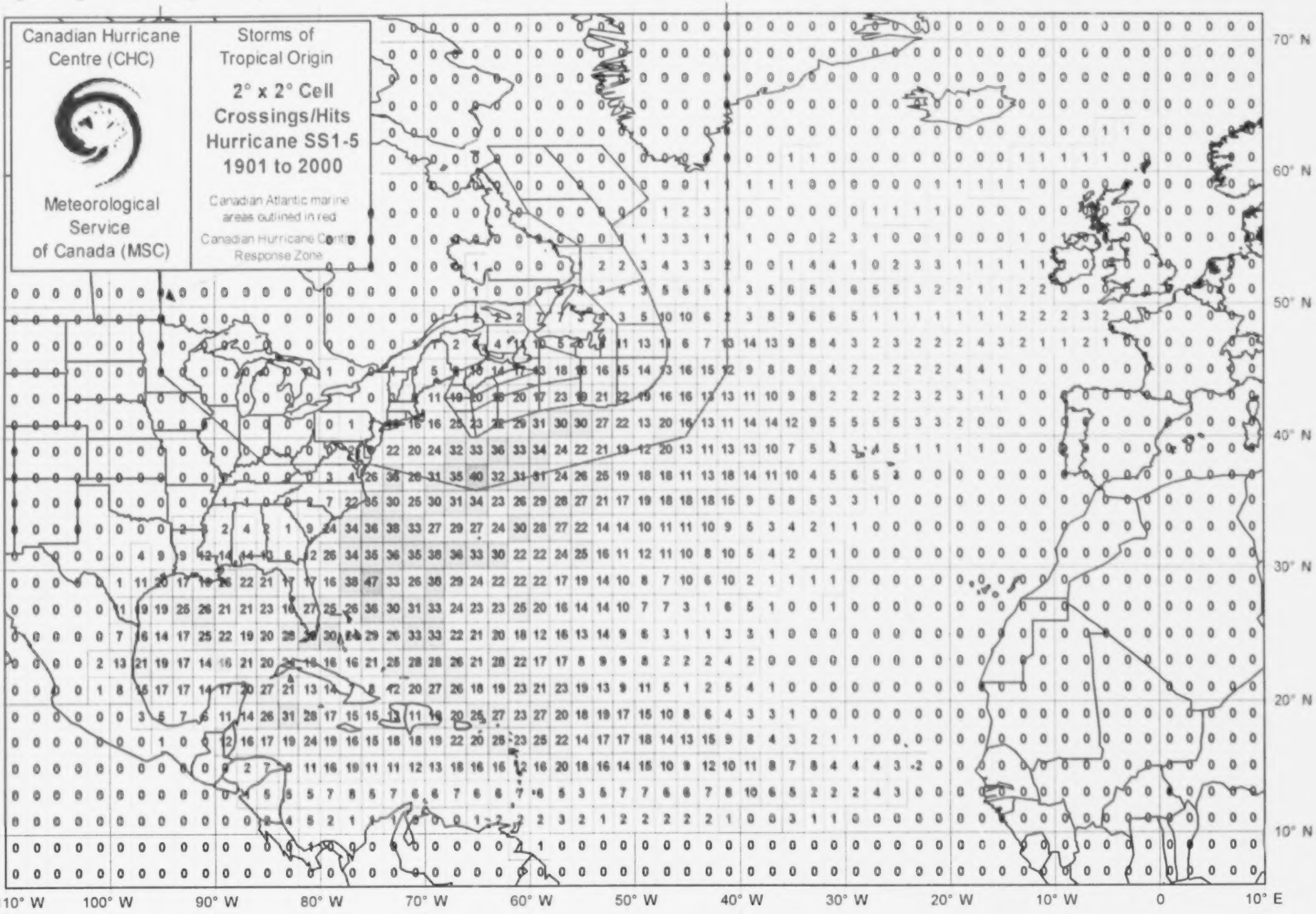

Canadian Hurricane Centre (CHC)
Meteorological Service of Canada
Count of all tropical cyclones per 1000 square km regardless of intensity
contours based upon a 2 x 2 degree initial analysis
2°x2° cell area (58°N to 60°N) = 25,468 sq. km
2°x2° cell area (10°N to 12°N) = 48,550 sq. km
60°N
50°N
40°N
30°N
20°N
10°N
-100°W
-90°W
-80°W
-70°W
-60°W
-50°W
-40°W
2.0
1.9
1.8
1.7
1.6
1.5
1.4
1.3
1.2
1.1
1.0
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1

Contour Map (zoom) - crossings/hits per 1000 km² 30°N to 60°N - 40°W to 80°W

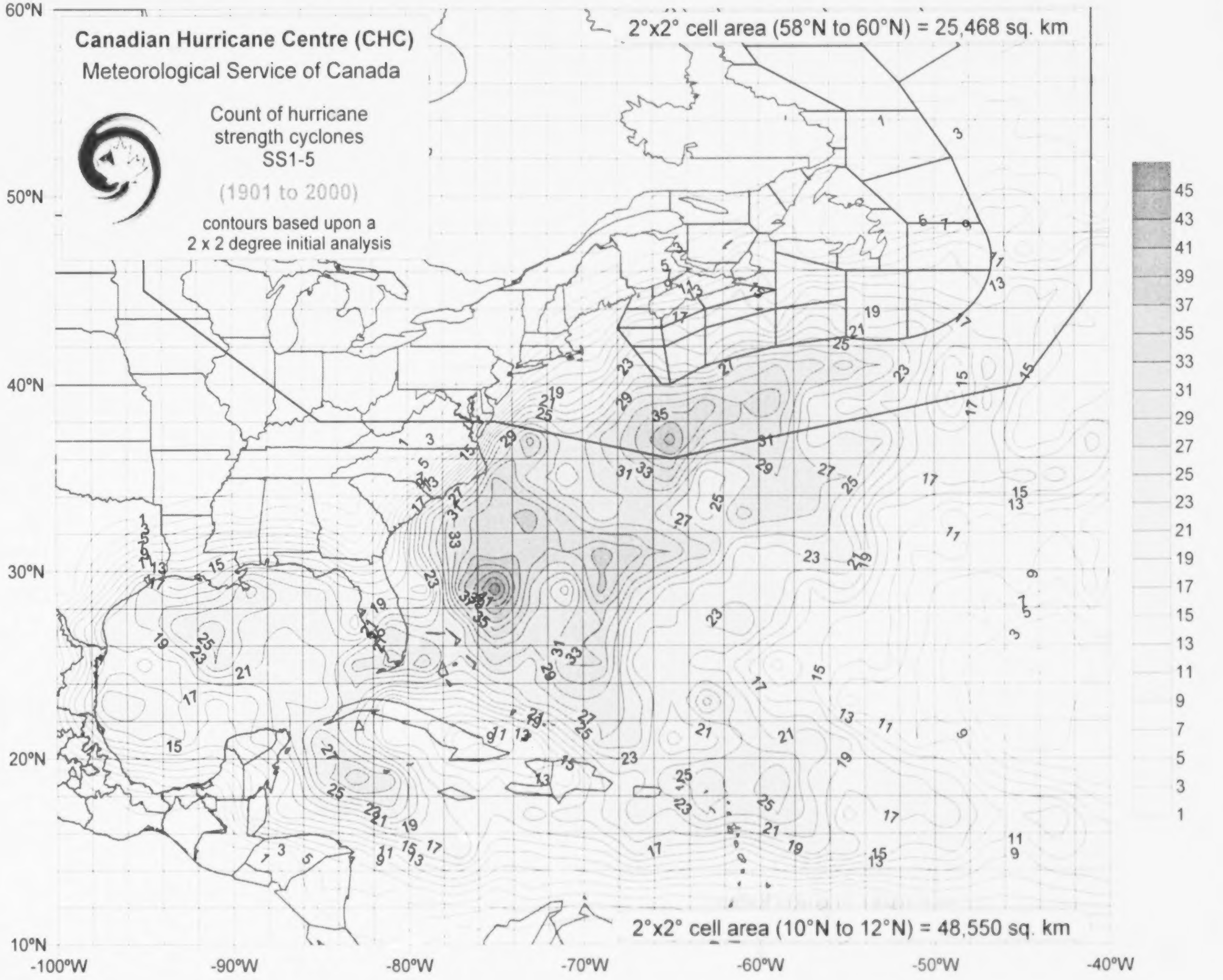

Canadian Hurricane Centre (CHC)
Meteorological Service of Canada
Count of all tropical cyclones per 1000 square km regardless of intensity
contours based upon a 2 x 2 degree initial analysis
2°x2° cell area (58°N to 60°N) = 25,468 sq. km
2°x2° cell area (30°N to 32°N) = 42,392 sq. km
60°N
50°N
40°N
30°N
-80°W
-70°W
-60°W
-50°W
-40°W
2.0
1.9
1.8
1.7
1.6
1.5
1.4
1.3
1.2
1.1
1.0
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1

1901 to 2000 - Hurricane Force Storms (SS1-5)

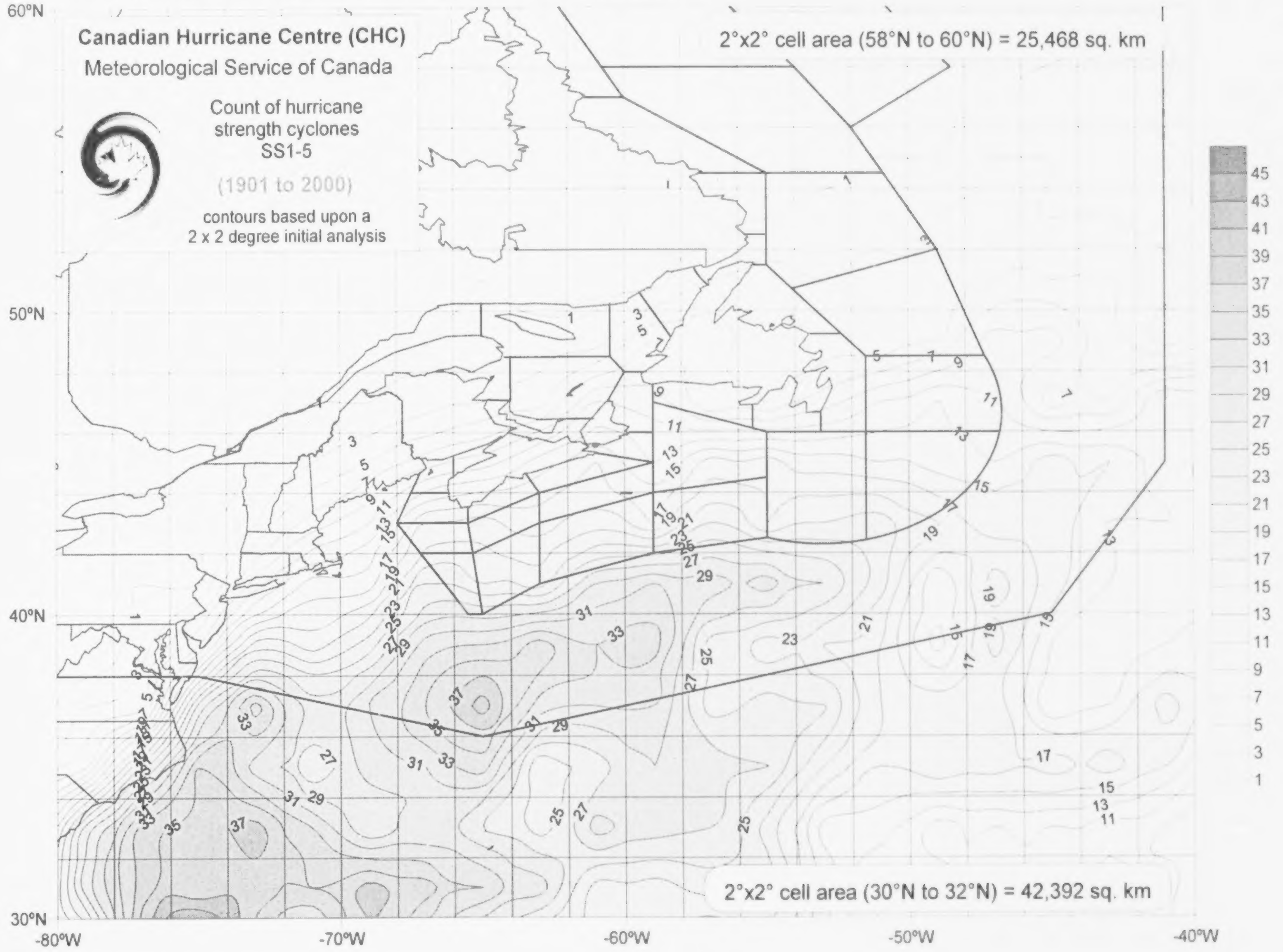
Range Map - crossings/hits per cell - 06°N to 72°N - 10°E to 110°W


Canadian Hurricane Centre (CHC)
Meteorological Service of Canada (MSC)
Storms of Tropical Origin
2° x 2° Cell Crossings/Hits Hurricane SS1-5 1901 to 2000
Canadian Atlantic marine areas outlined in red
Canadian Hurricane Centre Response Zone
70° N
60° N
50° N
40° N
30° N
20° N
10° N
110° W
100° W
90° W
80° W
70° W
60° W
50° W
40° W
30° W
20° W
10° W
0
10° E

Contour Map - crossings/hits per cell 10°N to 60°N - 40°W to 100°W


Canadian Hurricane Centre (CHC)
Meteorological Service of Canada
Count of hurricane strength cyclones SS1-5
(1901 to 2000)
contours based upon a 2 x 2 degree initial analysis
2°x2° cell area (58°N to 60°N) = 25,468 sq. km
2°x2° cell area (10°N to 12°N) = 48,550 sq. km
60°N
50°N
40°N
30°N
20°N
10°N
-100°W
-90°W
-80°W
-70°W
-60°W
-50°W
-40°W
45
43
41
39
37
35
33
31
29
27
25
23
21
19
17
15
13
11
9
7
5
3
1

Contour Map (zoom) - crossings/hits per cell 30°N to 60°N - 40°W to 80°W


Canadian Hurricane Centre (CHC)
Meteorological Service of Canada
Count of hurricane strength cyclones SS1-5
(1901 to 2000)
contours based upon a 2 x 2 degree initial analysis
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60°N
50°N
40°N
30°N
-80°W
-70°W
-60°W
-50°W
-40°W
45
43
41
39
37
35
33
31
29
27
25
23
21
19
17
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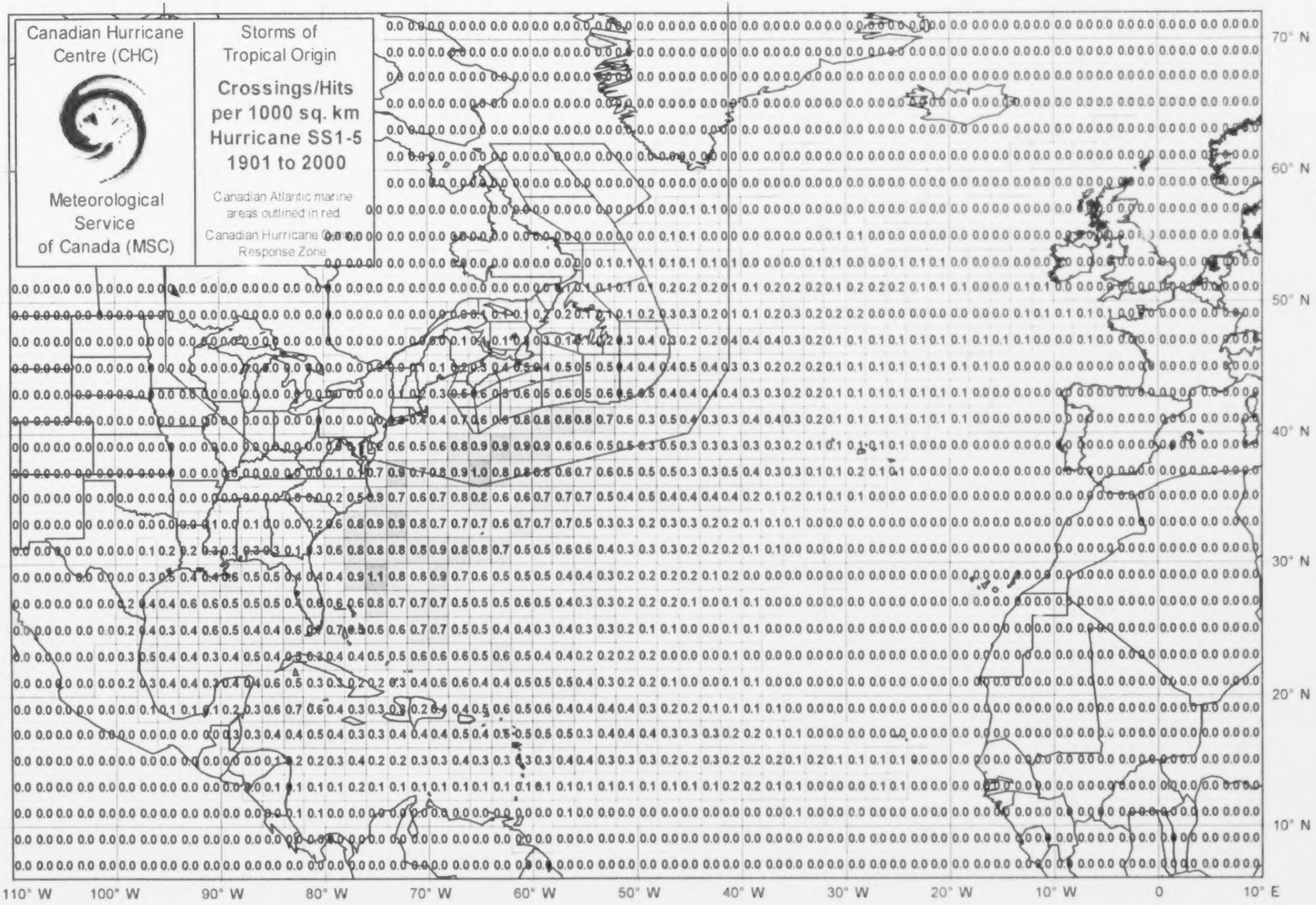
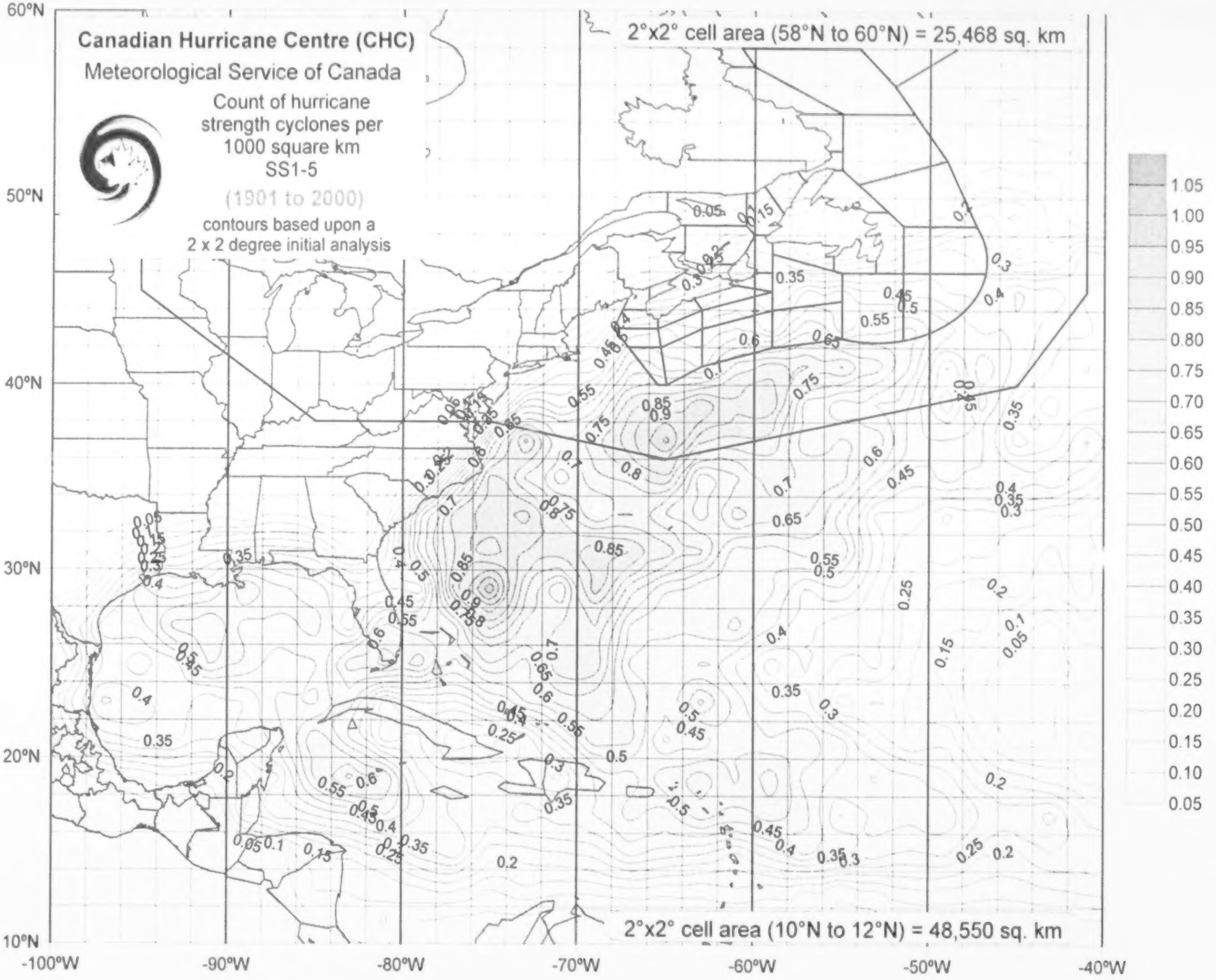
13
11
9
7
5
3
1

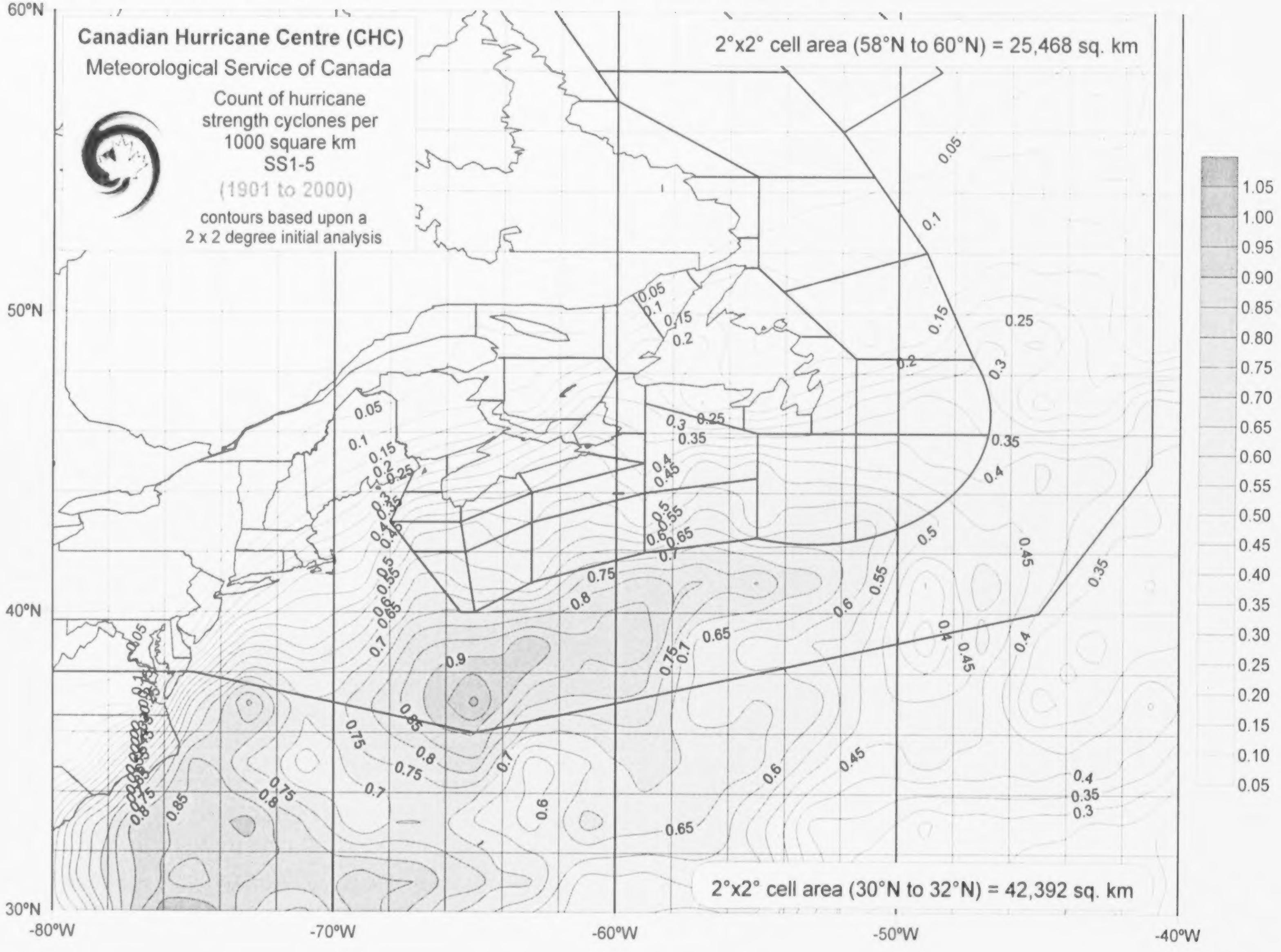
Range Map - crossings/hits per 1000 km^2 - 06°N to 72°N - 10°E to 110°W


Canadian Hurricane Centre (CHC)
Meteorological Service of Canada (MSC)
Storms of Tropical Origin
Crossings/Hits per 1000 sq. km
Hurricane SS1-5
1901 to 2000
Canadian Atlantic marine areas outlined in red
Canadian Hurricane Centre Response Zone
70° N
60° N
50° N
40° N
30° N
20° N
10° N
110° W
100° W
90° W
80° W
70° W
60° W
50° W
40° W
30° W
20° W
10° W
0
10° E

Contour Map - crossings/hits per 1000 km² 10°N to 60°N - 40°W to 100°W

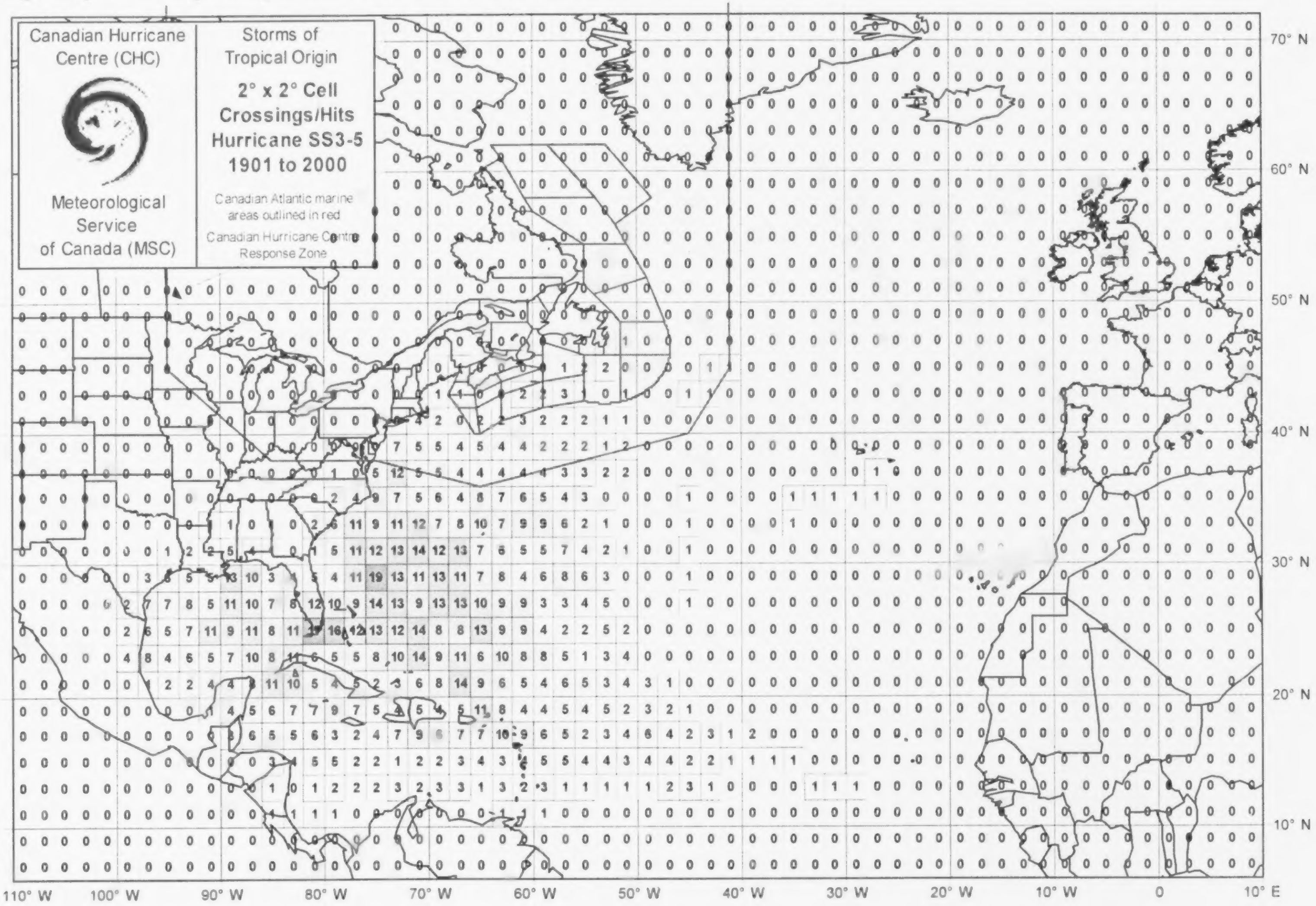

Canadian Hurricane Centre (CHC)
Meteorological Service of Canada
Count of hurricane strength cyclones per 1000 square km
SS1-5
(1901 to 2000)
contours based upon a 2 x 2 degree initial analysis
2°x2° cell area (58°N to 60°N) = 25,468 sq. km
2°x2° cell area (10°N to 12°N) = 48,550 sq. km
60°N
50°N
40°N
30°N
20°N
10°N
-100°W
-90°W
-80°W
-70°W
-60°W
-50°W
-40°W
1.05
1.00
0.95
0.90
0.85
0.80
0.75
0.70
0.65
0.60
0.55
0.50
0.45
0.40
0.35
0.30
0.25
0.20
0.15
0.10
0.05

Contour Map (zoom) - crossings/hits per 1000 km² 30°N to 60°N - 40°W to 80°W

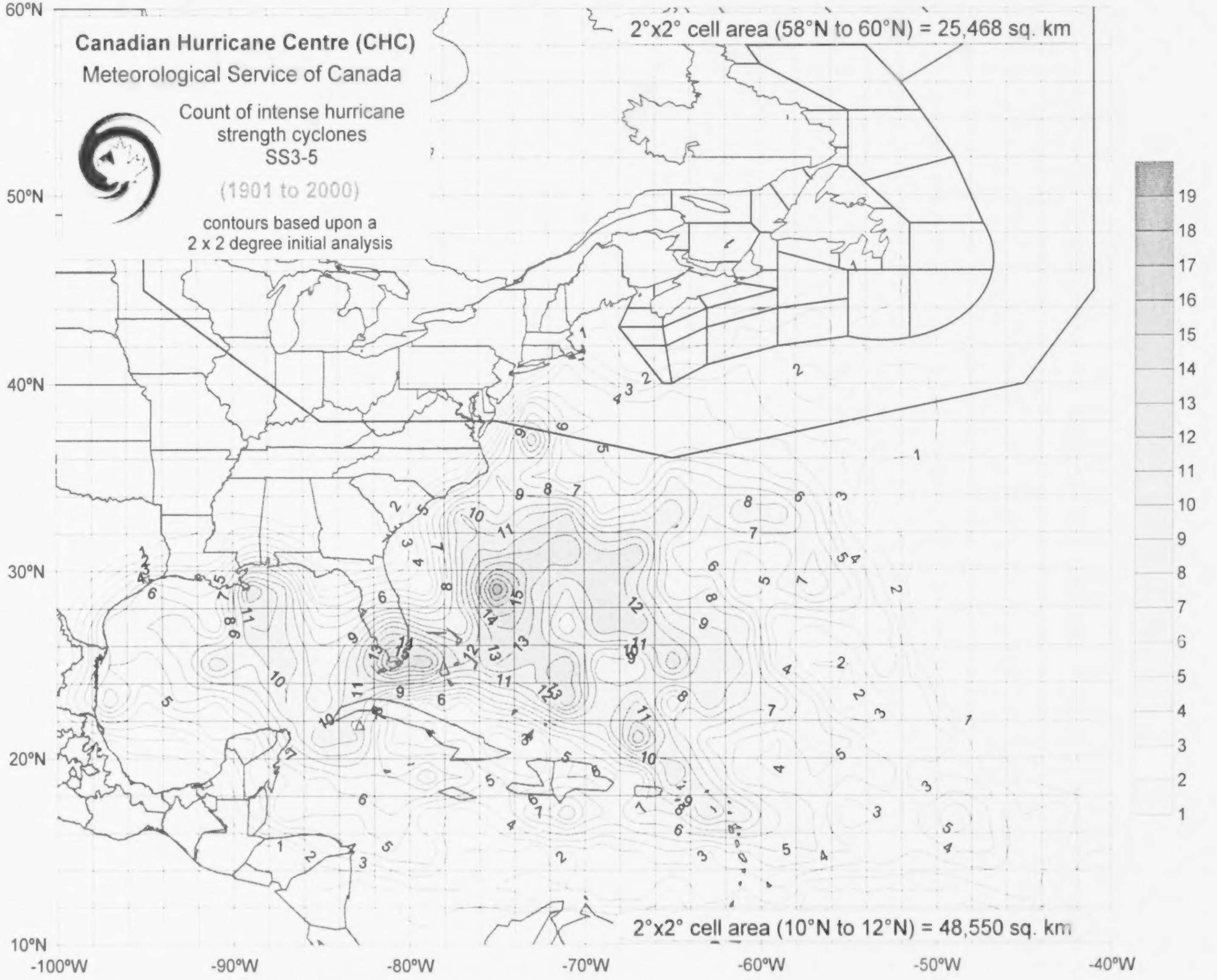

Canadian Hurricane Centre (CHC)
Meteorological Service of Canada
Count of hurricane strength cyclones per 1000 square km
SS1-5
(1901 to 2000)
contours based upon a 2 x 2 degree initial analysis
2°x2° cell area (58°N to 60°N) = 25,468 sq. km
2°x2° cell area (30°N to 32°N) = 42,392 sq. km
60°N
50°N
40°N
30°N
-80°W
-70°W
-60°W
-50°W
-40°W
1.05
1.00
0.95
0.90
0.85
0.80
0.75
0.70
0.65
0.60
0.55
0.50
0.45
0.40
0.35
0.30
0.25
0.20
0.15
0.10
0.05

1901 to 2000 – Intense Hurricane Force Storms (SS3-5)

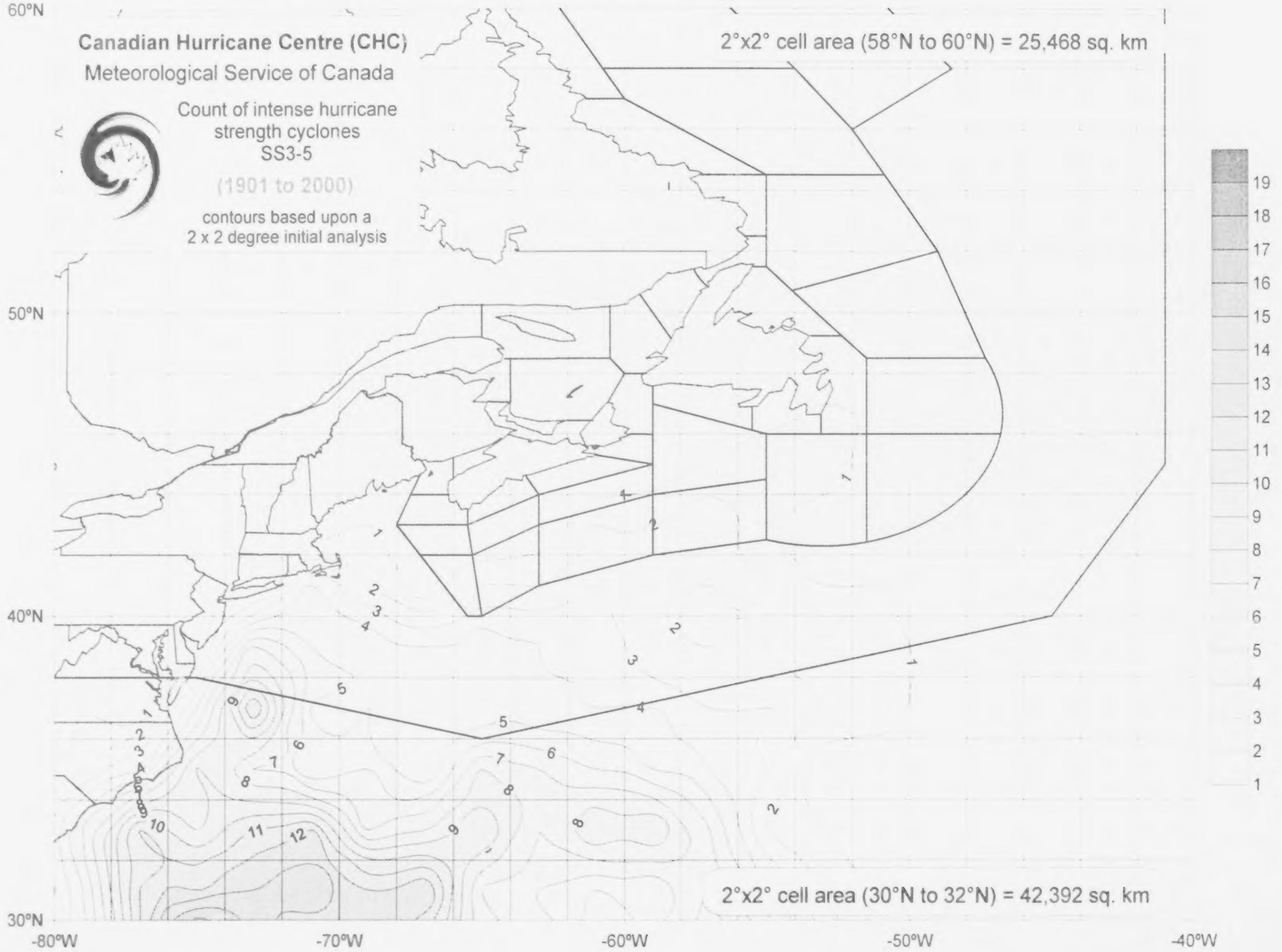
Range Map - crossings/hits per cell - 06°N to 72°N - 10°E to 110°W


Canadian Hurricane Centre (CHC)
Meteorological Service of Canada (MSC)
Storms of Tropical Origin
2° x 2° Cell Crossings/Hits Hurricane SS3-5 1901 to 2000
Canadian Atlantic marine areas outlined in red
Canadian Hurricane Centre Response Zone
70° N
60° N
50° N
40° N
30° N
20° N
10° N
110° W
100° W
90° W
80° W
70° W
60° W
50° W
40° W
30° W
20° W
10° W
0
10° E

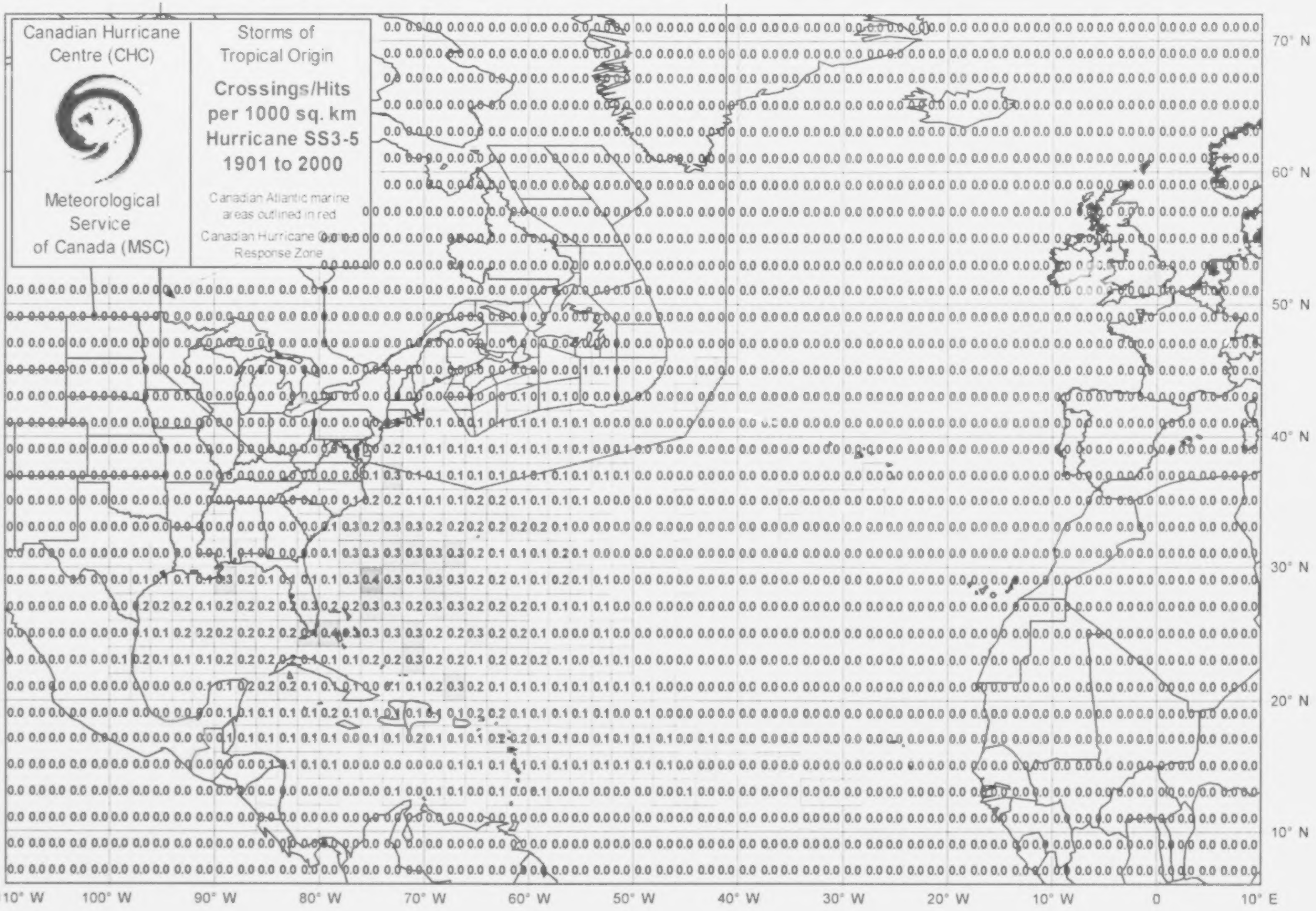
Contour Map – crossings/hits per cell 10°N to 60°N 40°W to 100°W


2°x2° cell area (58°N to 60°N) = 25,468 sq. km
Canadian Hurricane Centre (CHC)
Meteorological Service of Canada
Count of intense hurricane strength cyclones
SS3-5
(1901 to 2000)
contours based upon a 2 x 2 degree initial analysis
2°x2° cell area (10°N to 12°N) = 48,550 sq. km
60°N
50°N
40°N
30°N
20°N
10°N
-100°W
-90°W
-80°W
-70°W
-60°W
-50°W
-40°W
19
18
17
16
15
14
13
12
11
10
9
8
7
6
5
4
3
2
1

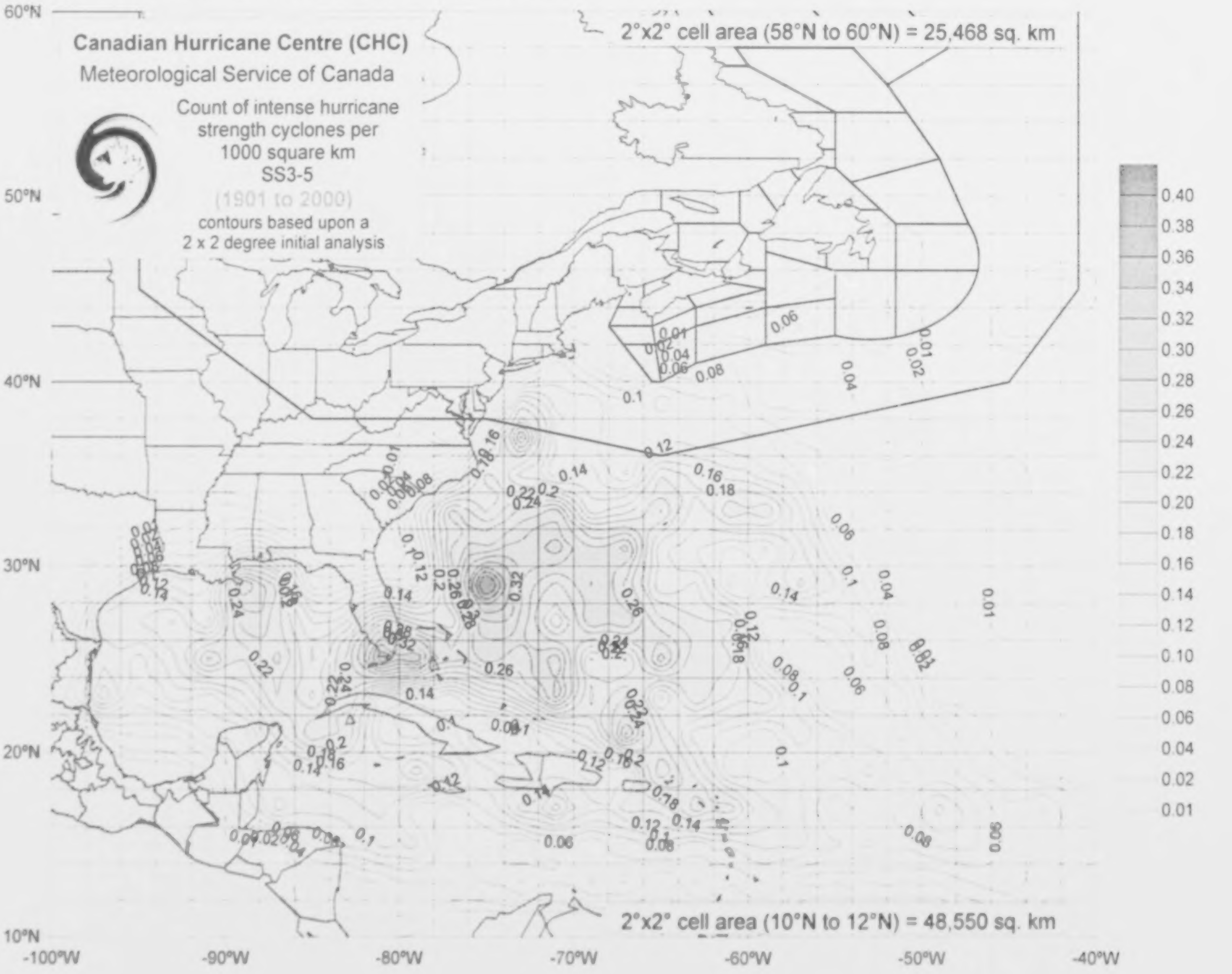
Contour Map (zoom) – crossings/hits per cell 30°N to 60°N 40°W to 80°W


60°N
50°N
40°N
30°N
-80°W
-70°W
-60°W
-50°W
-40°W
Canadian Hurricane Centre (CHC)
Meteorological Service of Canada
Count of intense hurricane strength cyclones SS3-5
(1901 to 2000)
contours based upon a 2 x 2 degree initial analysis
2°x2° cell area (58°N to 60°N) = 25,468 sq. km
2°x2° cell area (30°N to 32°N) = 42,392 sq. km
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19

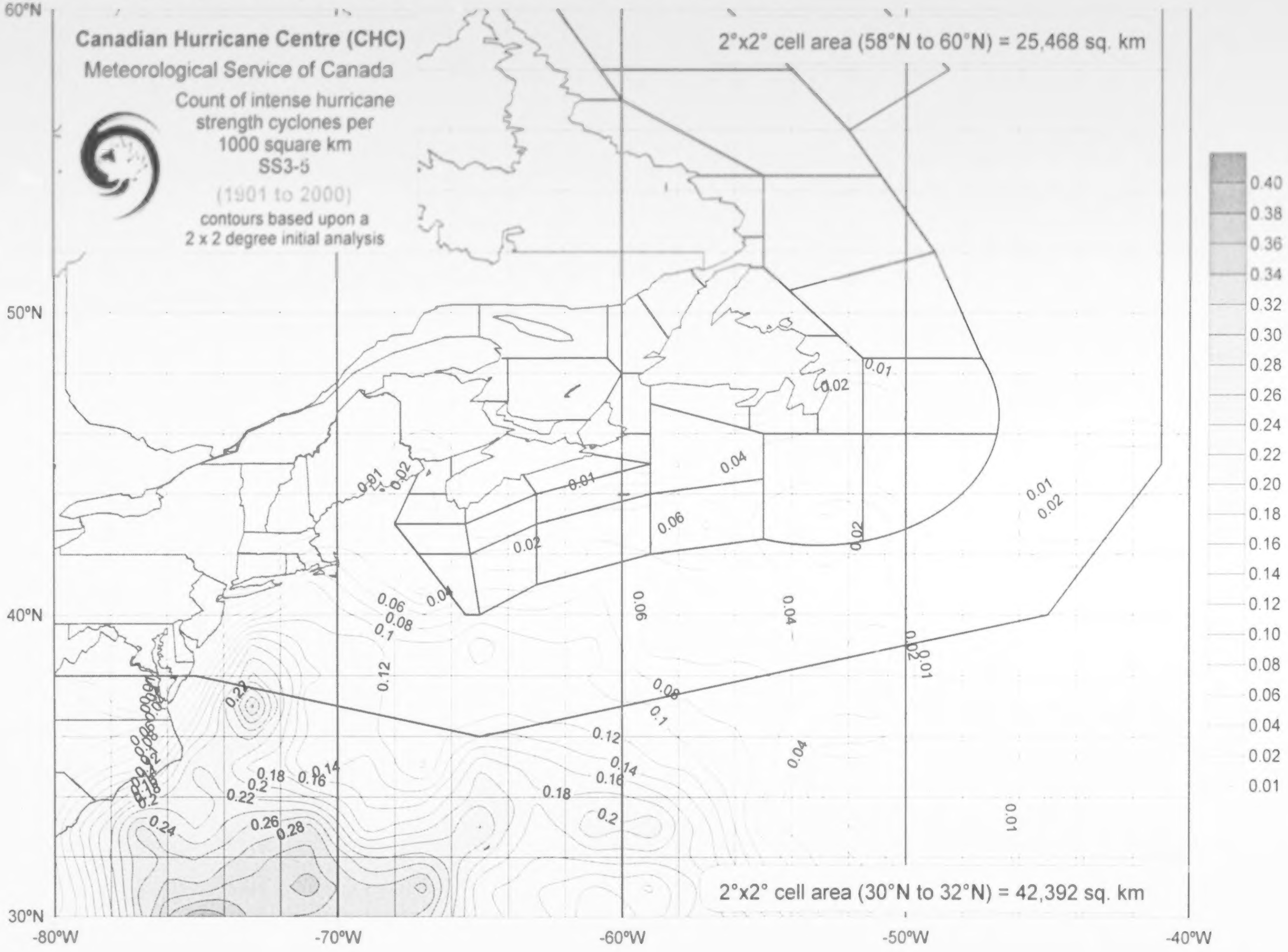
Range Map - crossings/hits per 1000km^2 - 06°N to 72°N - 10°E to 110°W


Canadian Hurricane Centre (CHC)
Meteorological Service of Canada (MSC)
Storms of Tropical Origin
Crossings/Hits per 1000 sq. km Hurricane SS3-5 1901 to 2000
Canadian Atlantic marine areas outlined in red
Canadian Hurricane Centre Response Zone
70° N
60° N
50° N
40° N
30° N
20° N
10° N
110° W
100° W
90° W
80° W
70° W
60° W
50° W
40° W
30° W
20° W
10° W
0
10° E

Contour Map - crossings/hits per 1000km² - 10°N to 60°N - 40°W to 100°W

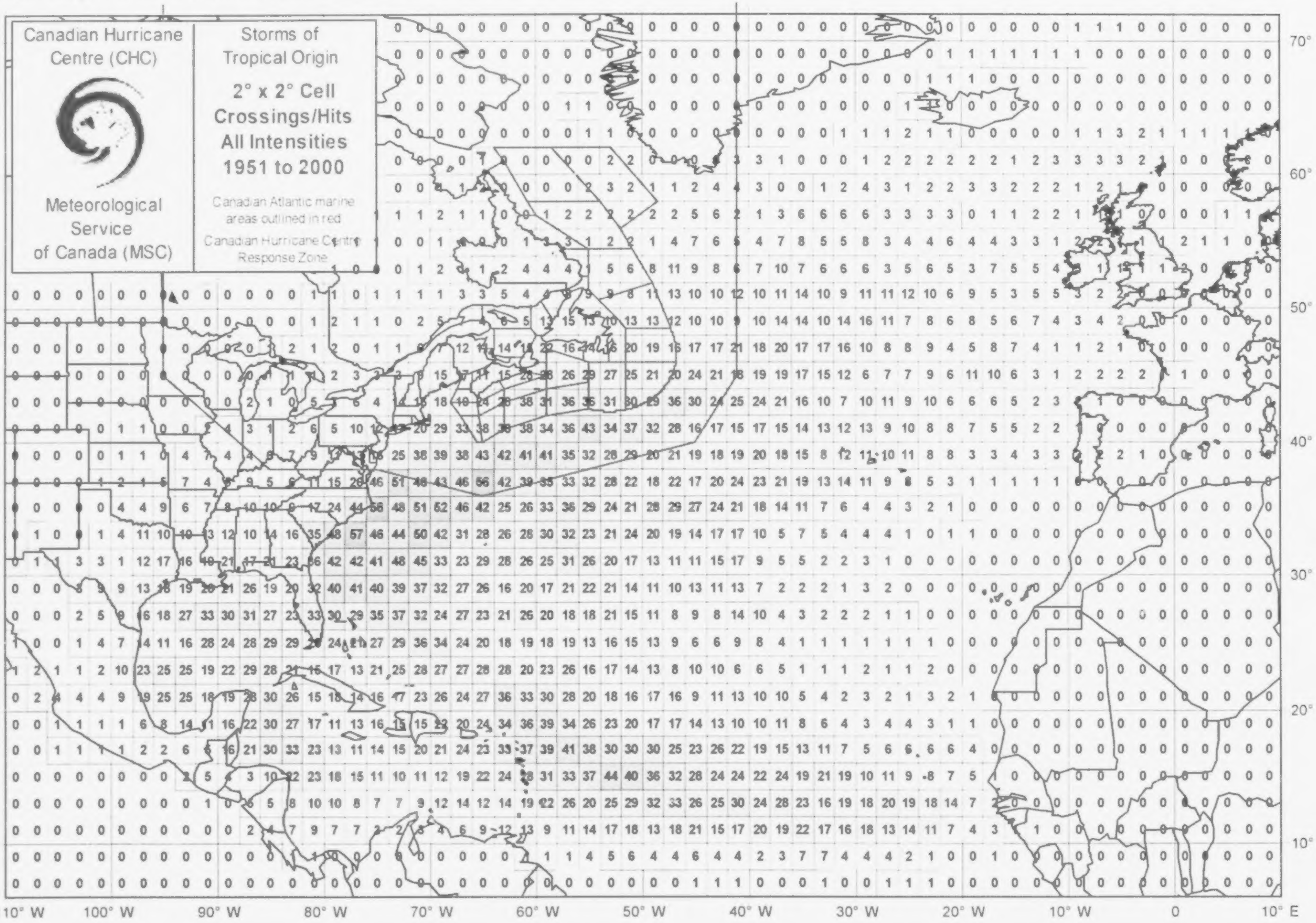

Canadian Hurricane Centre (CHC)
Meteorological Service of Canada
Count of intense hurricane strength cyclones per 1000 square km
SS3-5
(1901 to 2000)
contours based upon a 2 x 2 degree initial analysis
2°x2° cell area (58°N to 60°N) = 25,468 sq. km
2°x2° cell area (10°N to 12°N) = 48,550 sq. km
60°N
50°N
40°N
30°N
20°N
10°N
-100°W
-90°W
-80°W
-70°W
-60°W
-50°W
-40°W
0.40
0.38
0.36
0.34
0.32
0.30
0.28
0.26
0.24
0.22
0.20
0.18
0.16
0.14
0.12
0.10
0.08
0.06
0.04
0.02
0.01

Contour Map (zoom) - crossings/hits per 1000km^2 - 30°N to 60°N - 40°W to 80°W

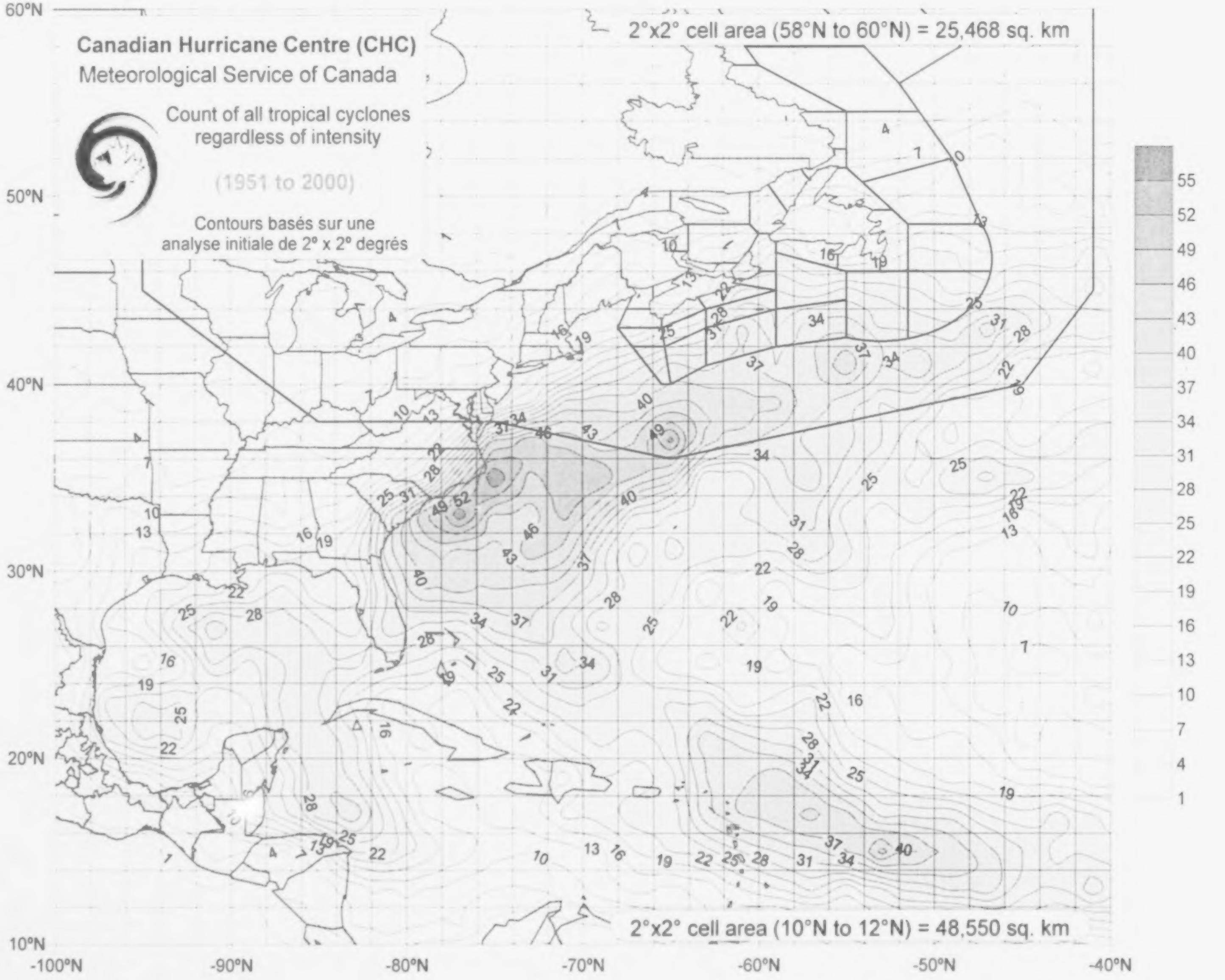

Canadian Hurricane Centre (CHC)
Meteorological Service of Canada
Count of intense hurricane strength cyclones per 1000 square km
SS3-5
(1901 to 2000)
contours based upon a 2 x 2 degree initial analysis
2°x2° cell area (58°N to 60°N) = 25,468 sq. km
2°x2° cell area (30°N to 32°N) = 42,392 sq. km
60°N
50°N
40°N
30°N
-80°W
-70°W
-60°W
-50°W
-40°W
0.01
0.02
0.04
0.06
0.08
0.1
0.12
0.14
0.16
0.18
0.2
0.22
0.24
0.26
0.28
0.40
0.38
0.36
0.34
0.32
0.30
0.28
0.26
0.24
0.22
0.20
0.18
0.16
0.14
0.12
0.10
0.08
0.06
0.04
0.02
0.01

1951 to 2000 - All Intensities

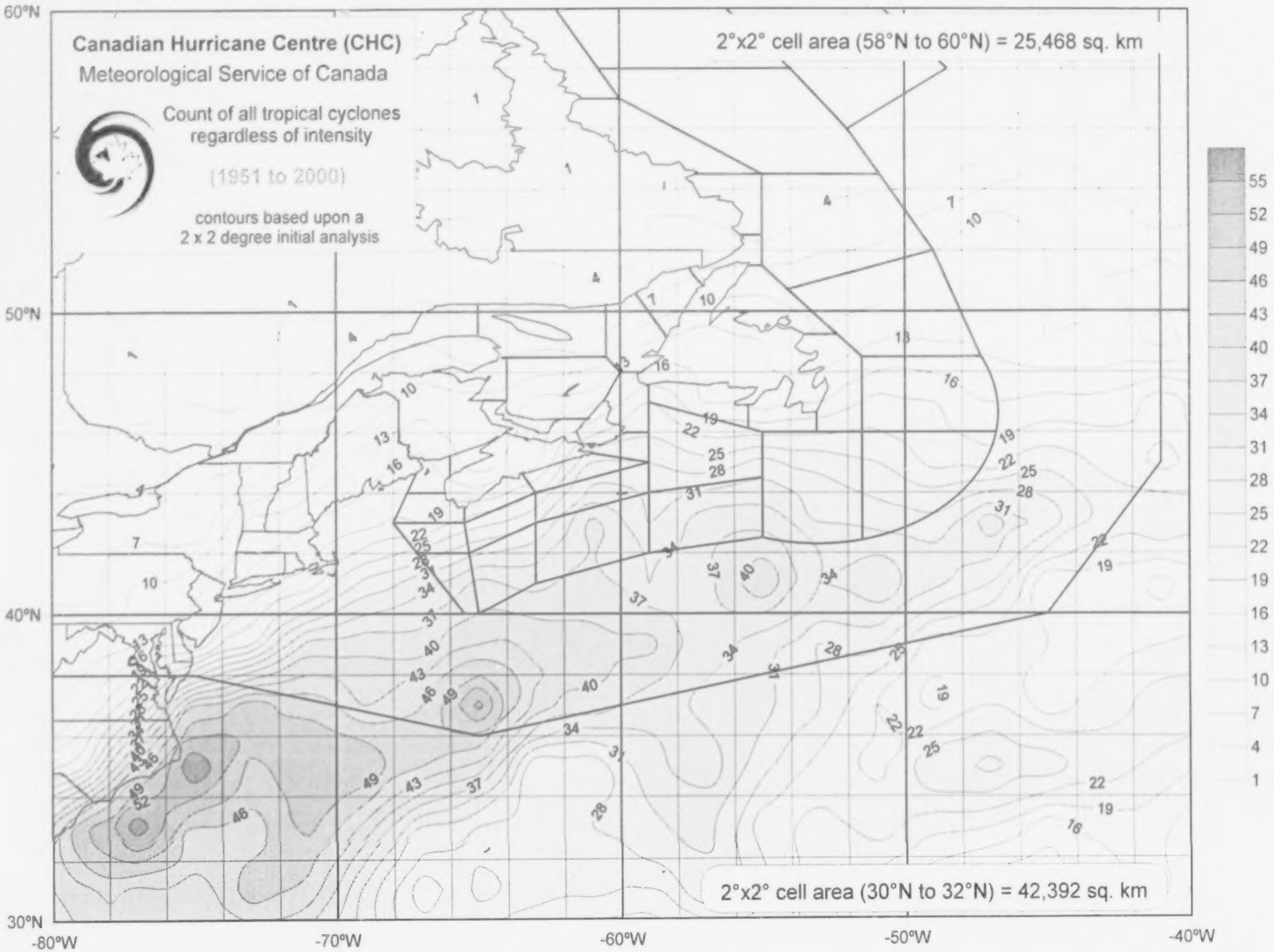
Range Map - crossings/hits per cell - 06°N to 72°N - 10°E to 110°W


Canadian Hurricane Centre (CHC)
Meteorological Service of Canada (MSC)
Storms of Tropical Origin
2° x 2° Cell Crossings/Hits All Intensities 1951 to 2000
Canadian Atlantic marine areas outlined in red
Canadian Hurricane Centre Response Zone
70° N
60° N
50° N
40° N
30° N
20° N
10° N
110° W
100° W
90° W
80° W
70° W
60° W
50° W
40° W
30° W
20° W
10° W
0
10° E

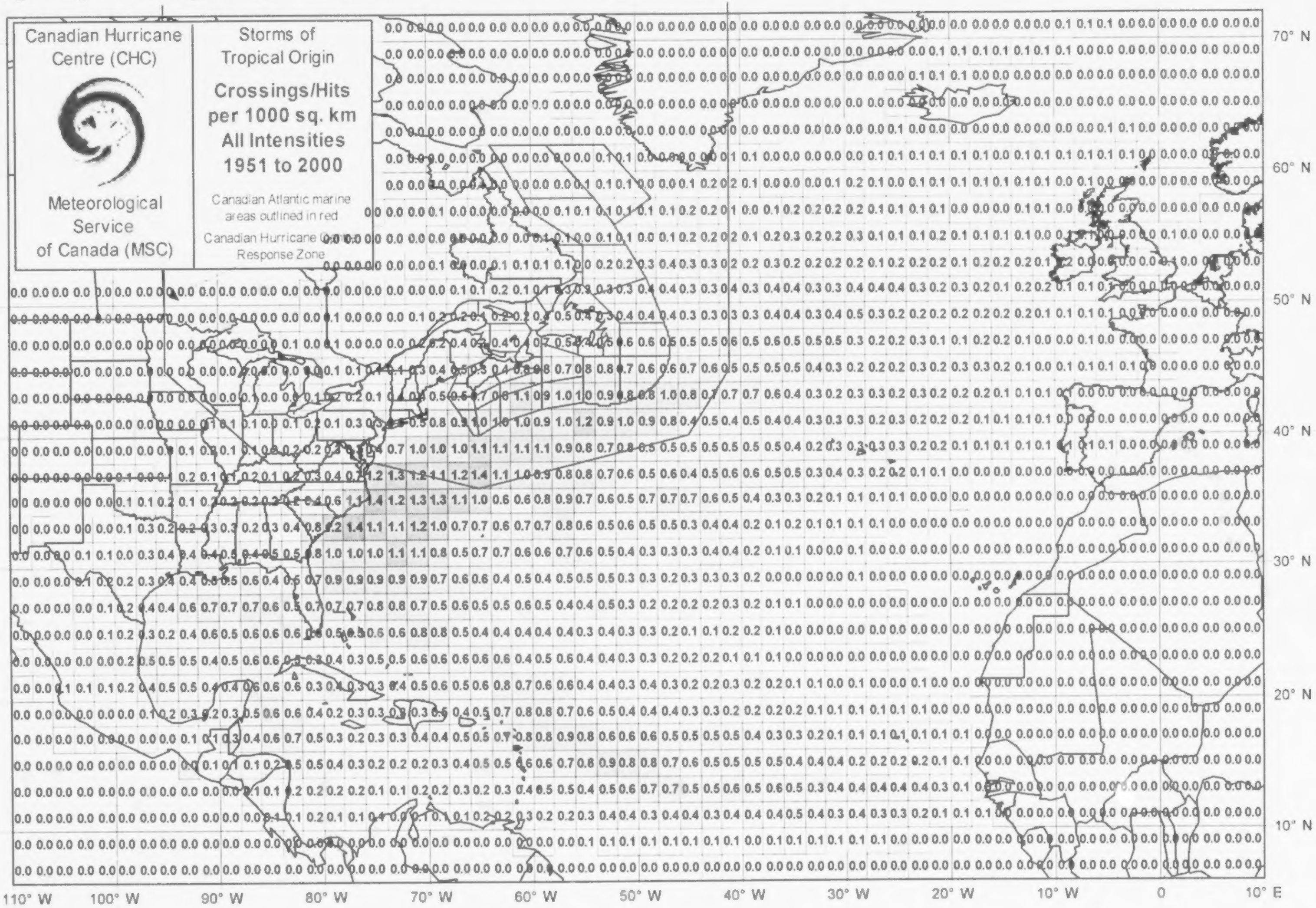
Contour Map - crossings/hits per cell 10°N to 60°N - 40°W to 100°W


Canadian Hurricane Centre (CHC)
Meteorological Service of Canada
Count of all tropical cyclones regardless of intensity
(1951 to 2000)
Contours basés sur une analyse initiale de 2° x 2° degrés
2°x2° cell area (58°N to 60°N) = 25,468 sq. km
2°x2° cell area (10°N to 12°N) = 48,550 sq. km
60°N
50°N
40°N
30°N
20°N
10°N
-100°N
-90°N
-80°N
-70°N
-60°N
-50°N
-40°N
55
52
49
46
43
40
37
34
31
28
25
22
19
16
13
10
7
4
1

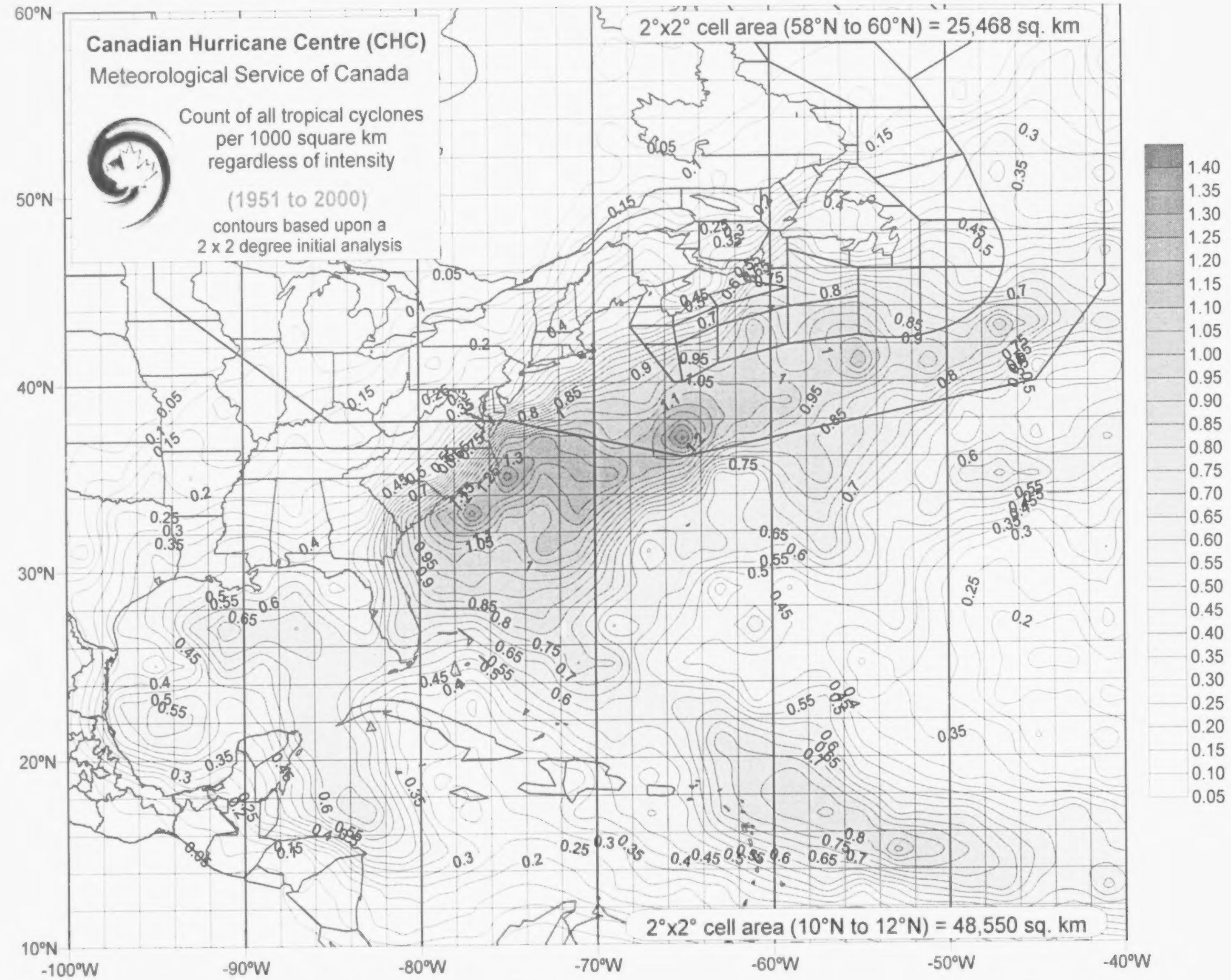
Contour Map (zoom) - crossings/hits per cell 30°N to 60°N - 40°W to 80°W


Canadian Hurricane Centre (CHC)
Meteorological Service of Canada
Count of all tropical cyclones regardless of intensity
(1951 to 2000)
contours based upon a 2 x 2 degree initial analysis
2°x2° cell area (58°N to 60°N) = 25,468 sq. km
2°x2° cell area (30°N to 32°N) = 42,392 sq. km
60°N
50°N
40°N
30°N
-80°W
-70°W
-60°W
-50°W
-40°W
55
52
49
46
43
40
37
34
31
28
25
22
19
16
13
10
7
4
1

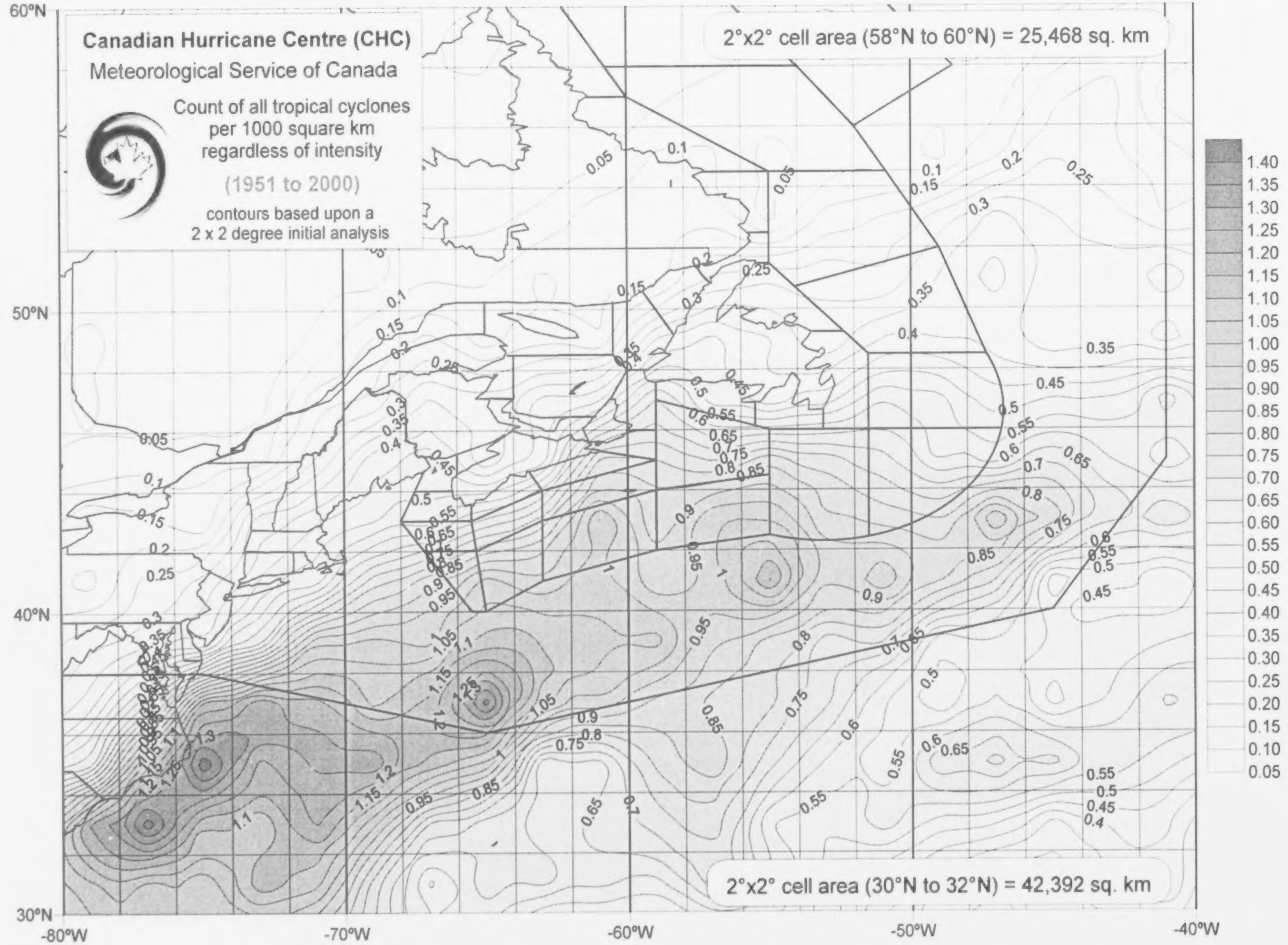
Range Map - crossings/hits per 1000 km^2 - 06°N to 72°N - 10°E to 110°W


Canadian Hurricane Centre (CHC)
Meteorological Service of Canada (MSC)
Storms of Tropical Origin
Crossings/Hits per 1000 sq. km
All Intensities
1951 to 2000
Canadian Atlantic marine areas outlined in red
Canadian Hurricane Centre Response Zone
70° N
60° N
50° N
40° N
30° N
20° N
10° N
110° W
100° W
90° W
80° W
70° W
60° W
50° W
40° W
30° W
20° W
10° W
0
10° E

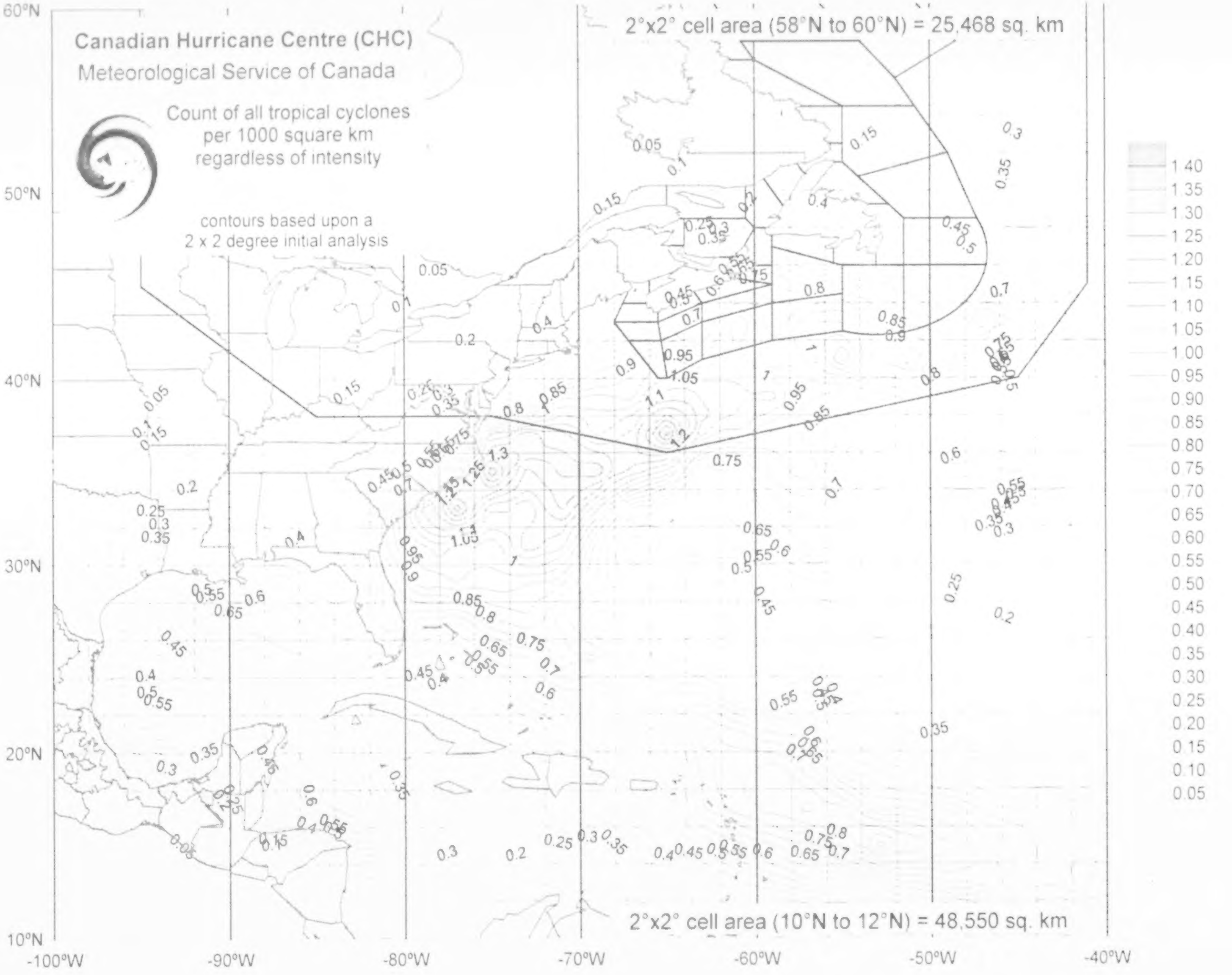
Contour Map - crossings/hits per 1000 km^2 10°N to 60°N - 40°W to 100°W


Canadian Hurricane Centre (CHC)
Meteorological Service of Canada
Count of all tropical cyclones per 1000 square km regardless of intensity
(1951 to 2000)
contours based upon a 2 x 2 degree initial analysis
2°x2° cell area (58°N to 60°N) = 25,468 sq. km
2°x2° cell area (10°N to 12°N) = 48,550 sq. km
60°N
50°N
40°N
30°N
20°N
10°N
-100°W
-90°W
-80°W
-70°W
-60°W
-50°W
-40°W
1.40
1.35
1.30
1.25
1.20
1.15
1.10
1.05
1.00
0.95
0.90
0.85
0.80
0.75
0.70
0.65
0.60
0.55
0.50
0.45
0.40
0.35
0.30
0.25
0.20
0.15
0.10
0.05

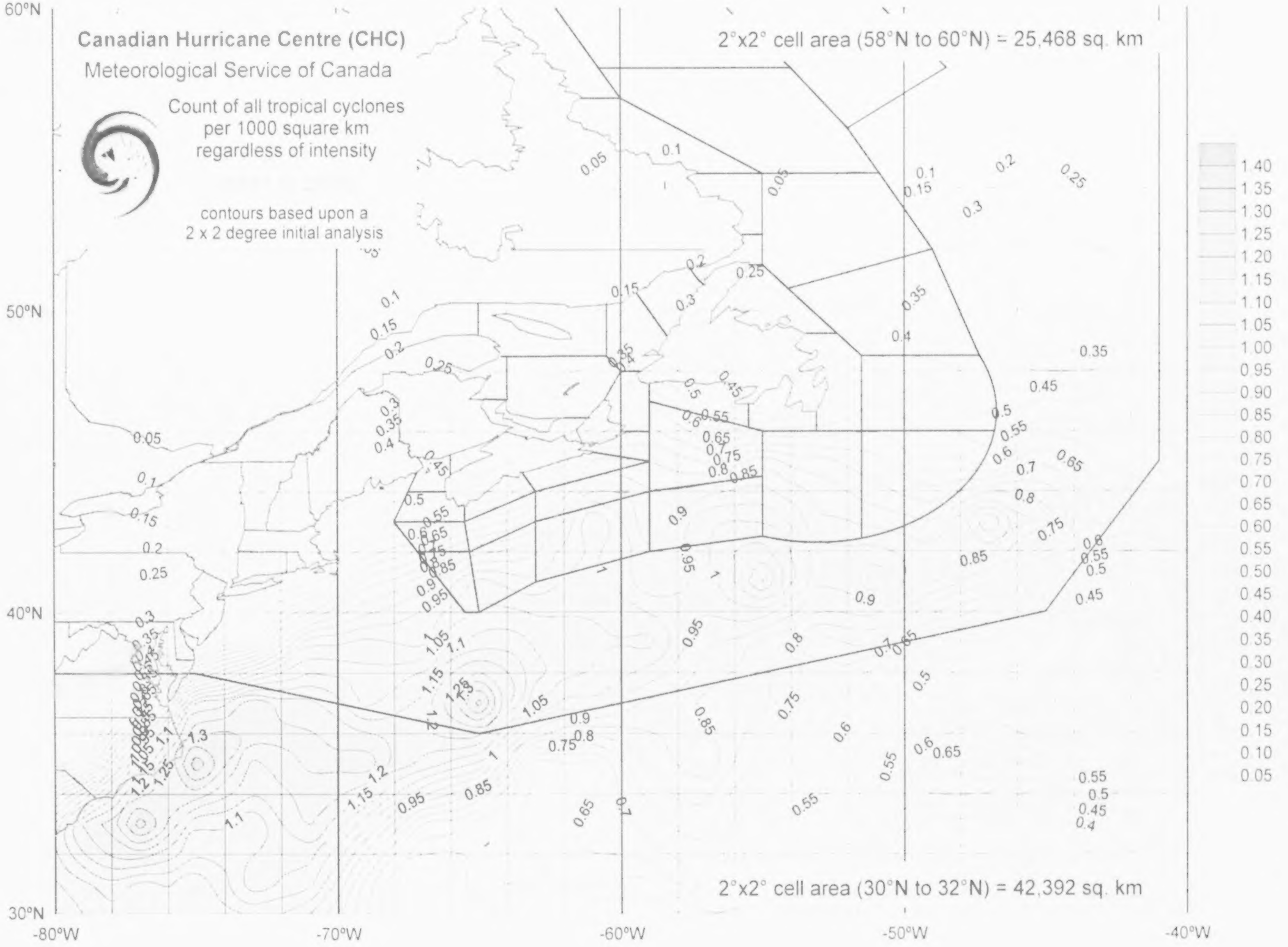
Contour Map (zoom) - crossings/hits per 1000 km^2 30°N to 60°N - 40°W to 80°W


Canadian Hurricane Centre (CHC)
Meteorological Service of Canada
Count of all tropical cyclones per 1000 square km regardless of intensity
(1951 to 2000)
contours based upon a 2 x 2 degree initial analysis
2°x2° cell area (58°N to 60°N) = 25,468 sq. km
2°x2° cell area (30°N to 32°N) = 42,392 sq. km
60°N
50°N
40°N
30°N
-80°W
-70°W
-60°W
-50°W
-40°W
1.40
1.35
1.30
1.25
1.20
1.15
1.10
1.05
1.00
0.95
0.90
0.85
0.80
0.75
0.70
0.65
0.60
0.55
0.50
0.45
0.40
0.35
0.30
0.25
0.20
0.15
0.10
0.05

Contour Map - crossings/hits per 1000 km^2 10°N to 60°N - 40°W to 100°W

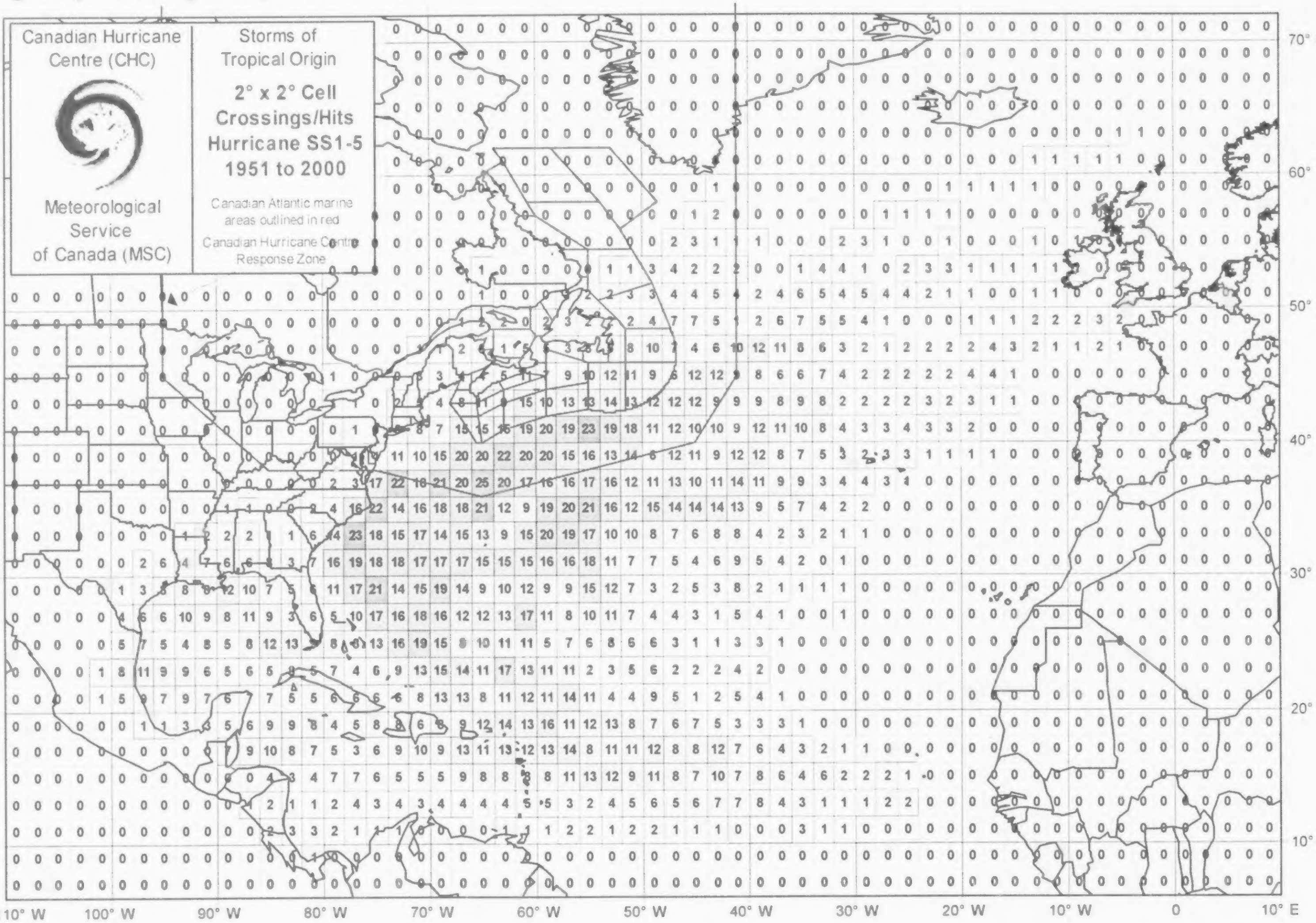

Canadian Hurricane Centre (CHC)
Meteorological Service of Canada
Count of all tropical cyclones per 1000 square km regardless of intensity
contours based upon a 2 x 2 degree initial analysis
2°x2° cell area (58°N to 60°N) = 25,468 sq. km
2°x2° cell area (10°N to 12°N) = 48,550 sq. km
60°N
50°N
40°N
30°N
20°N
10°N
-100°W
-90°W
-80°W
-70°W
-60°W
-50°W
-40°W
1.40
1.35
1.30
1.25
1.20
1.15
1.10
1.05
1.00
0.95
0.90
0.85
0.80
0.75
0.70
0.65
0.60
0.55
0.50
0.45
0.40
0.35
0.30
0.25
0.20
0.15
0.10
0.05

Contour Map (zoom) - crossings/hits per 1000 km^2 30°N to 60°N - 40°W to 80°W

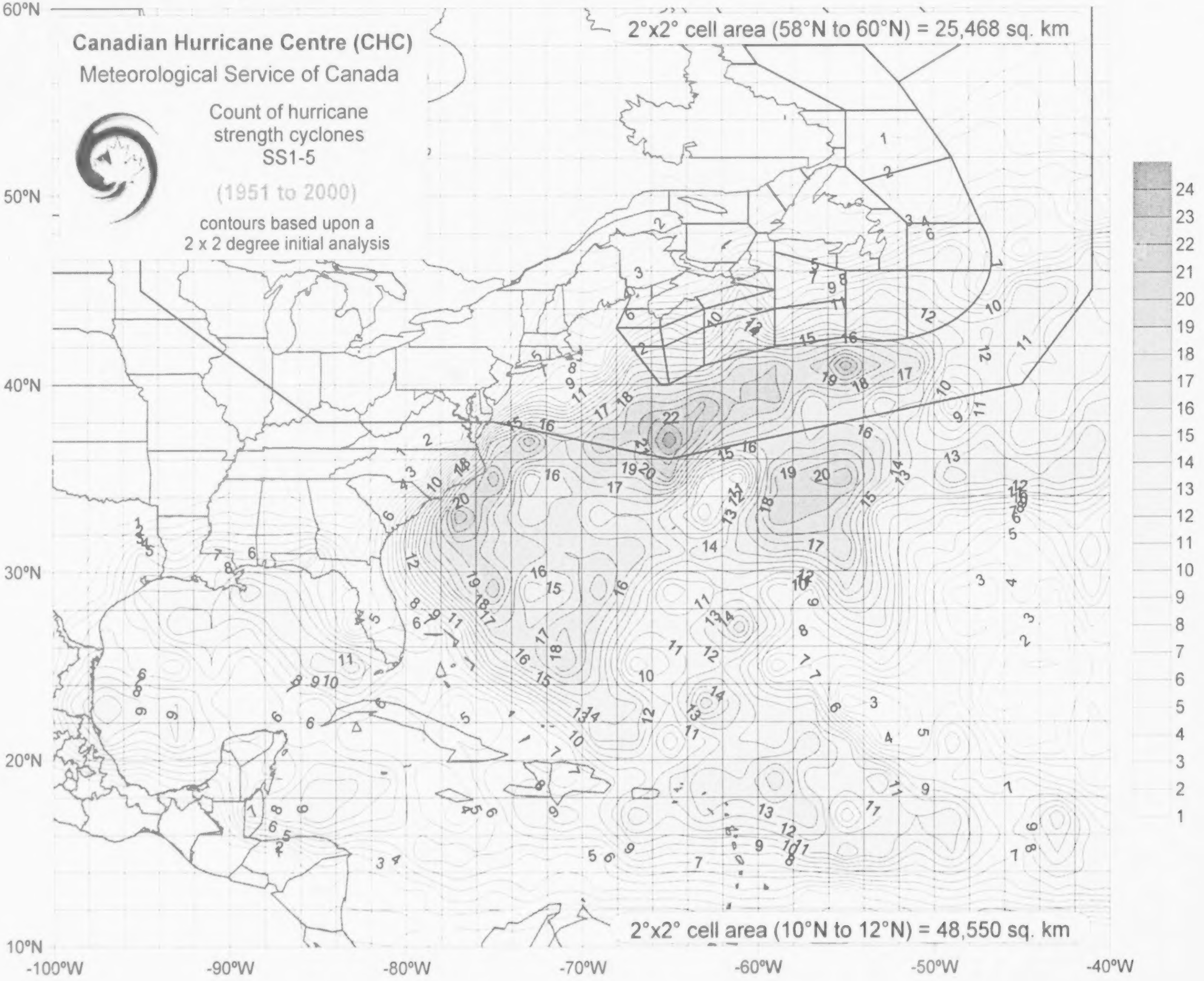

Canadian Hurricane Centre (CHC)
Meteorological Service of Canada
Count of all tropical cyclones per 1000 square km regardless of intensity
contours based upon a 2 x 2 degree initial analysis
2°x2° cell area (58°N to 60°N) = 25,468 sq. km
2°x2° cell area (30°N to 32°N) = 42,392 sq. km
60°N
50°N
40°N
30°N
-80°W
-70°W
-60°W
-50°W
-40°W
1.40
1.35
1.30
1.25
1.20
1.15
1.10
1.05
1.00
0.95
0.90
0.85
0.80
0.75
0.70
0.65
0.60
0.55
0.50
0.45
0.40
0.35
0.30
0.25
0.20
0.15
0.10
0.05

1951 to 2000 - Hurricane Force Storms (SS1-5)

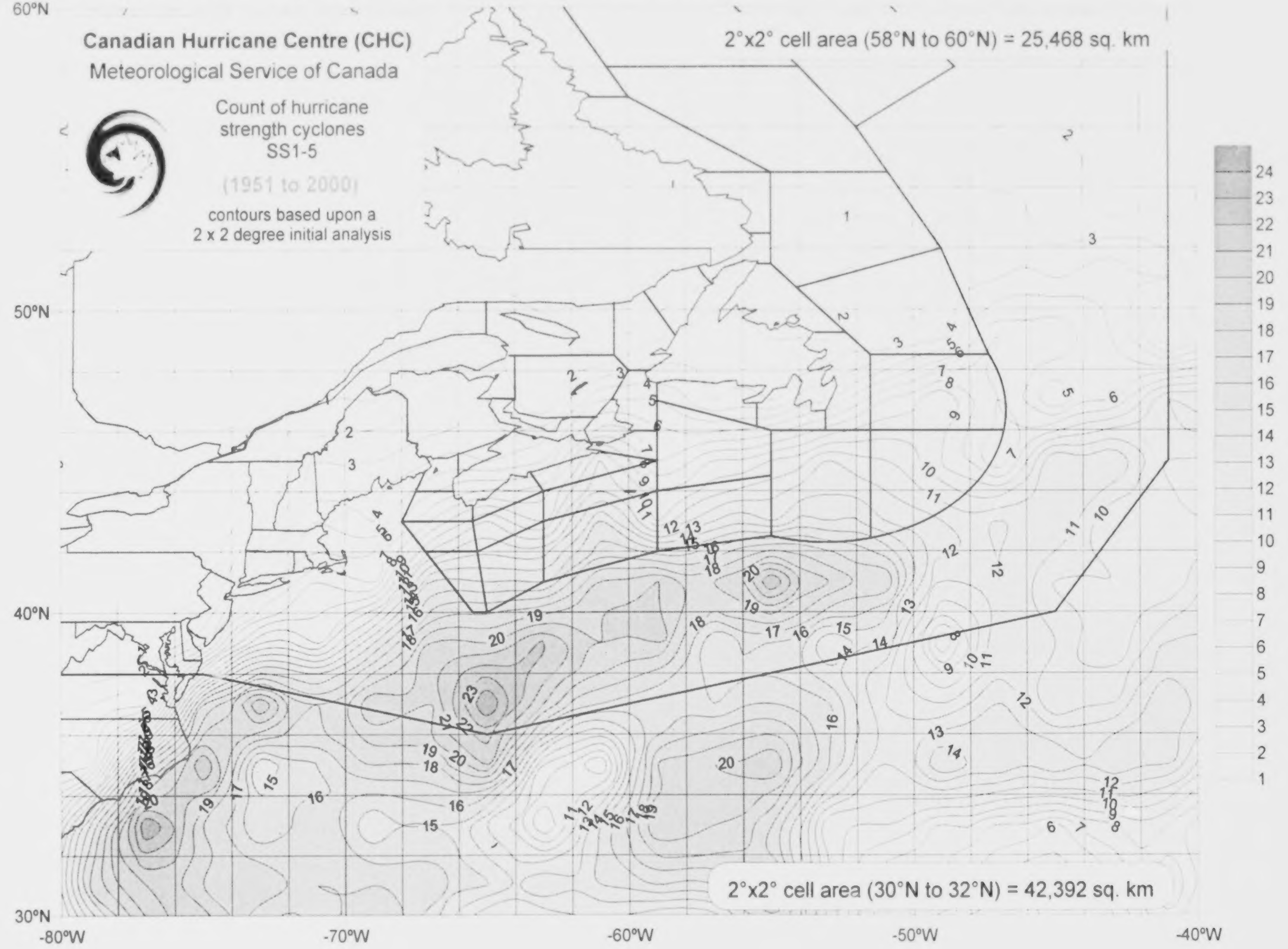
Range Map - crossings/hits per cell - 06°N to 72°N - 10°E to 110°W


Canadian Hurricane Centre (CHC)
Meteorological Service of Canada (MSC)
Storms of Tropical Origin
2° x 2° Cell Crossings/Hits Hurricane SS1-5 1951 to 2000
Canadian Atlantic marine areas outlined in red
Canadian Hurricane Centre Response Zone
70° N
60° N
50° N
40° N
30° N
20° N
10° N
110° W
100° W
90° W
80° W
70° W
60° W
50° W
40° W
30° W
20° W
10° W
0
10° E

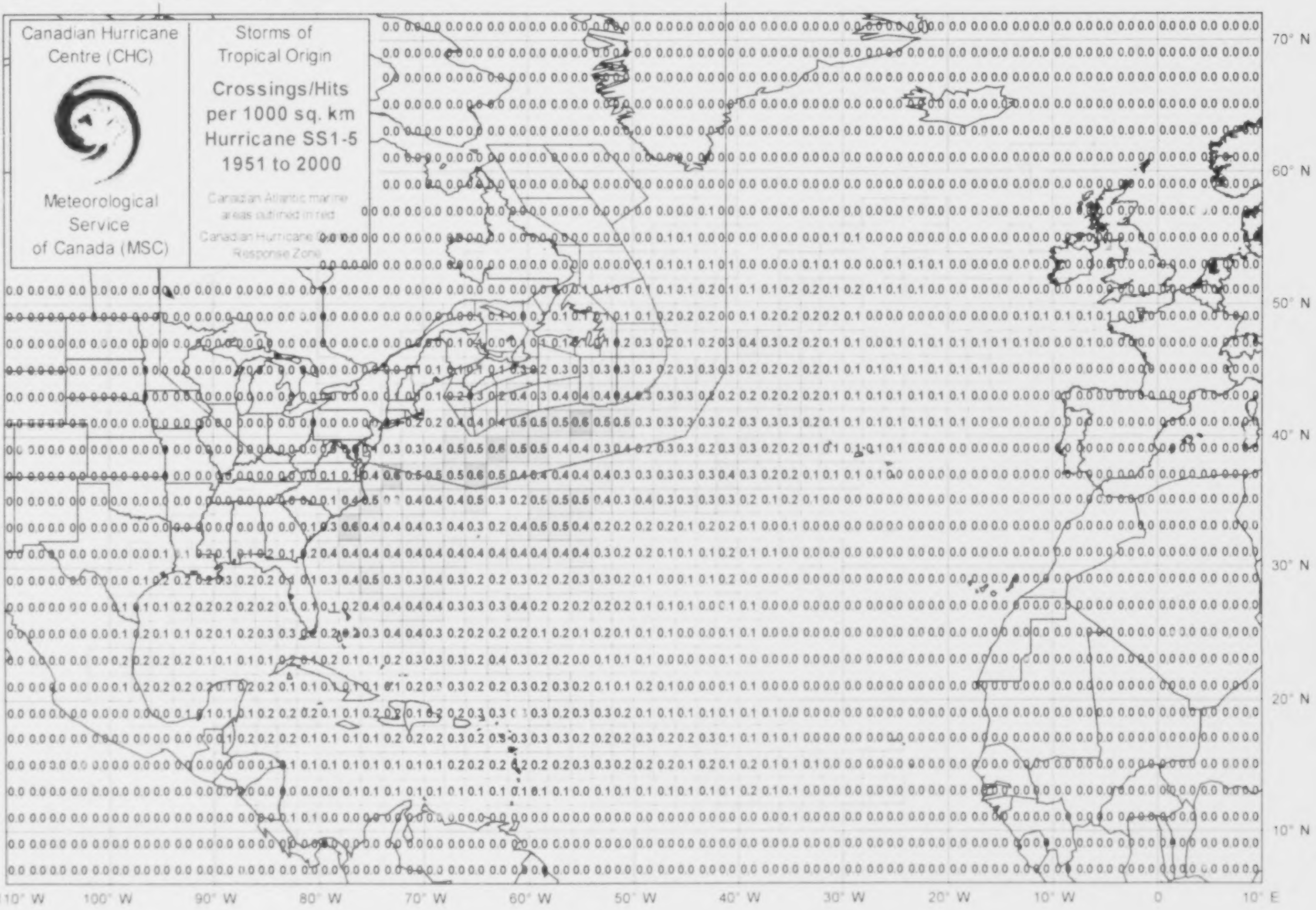
Contour Map - crossings/hits per cell 10°N to 60°N - 40°W to 100°W


Canadian Hurricane Centre (CHC)
Meteorological Service of Canada
Count of hurricane strength cyclones SS1-5
(1951 to 2000)
contours based upon a 2 x 2 degree initial analysis
2°x2° cell area (58°N to 60°N) = 25,468 sq. km
2°x2° cell area (10°N to 12°N) = 48,550 sq. km
60°N
50°N
40°N
30°N
20°N
10°N
-100°W
-90°W
-80°W
-70°W
-60°W
-50°W
-40°W
24
23
22
21
20
19
18
17
16
15
14
13
12
11
10
9
8
7
6
5
4
3
2
1

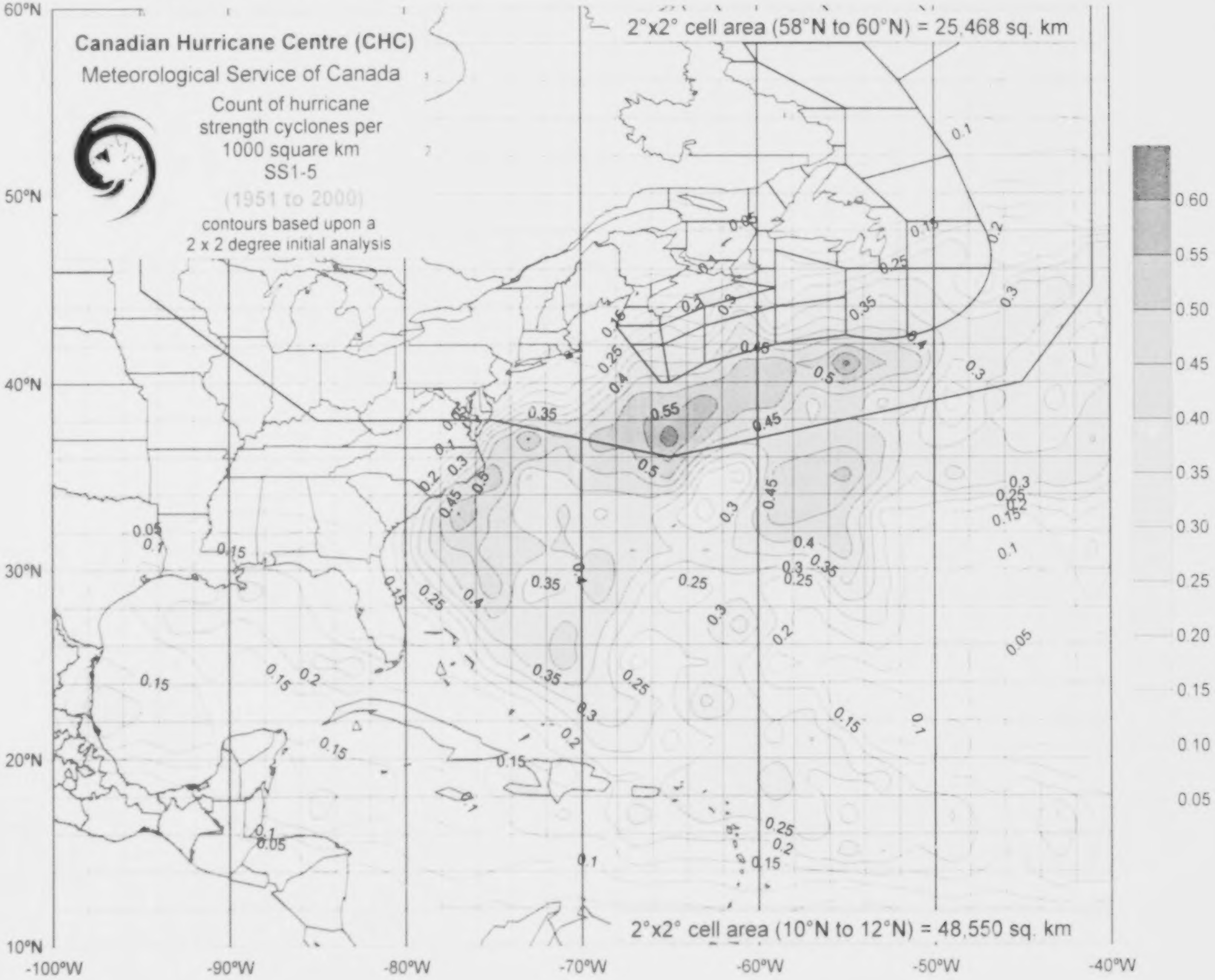
Contour Map (zoom) - crossings/hits per cell 30°N to 60°N - 40°W to 80°W


60°N
50°N
40°N
30°N
-80°W
-70°W
-60°W
-50°W
-40°W
Canadian Hurricane Centre (CHC)
Meteorological Service of Canada
Count of hurricane strength cyclones SS1-5
(1951 to 2000)
contours based upon a 2 x 2 degree initial analysis
2°x2° cell area (58°N to 60°N) = 25,468 sq. km
2°x2° cell area (30°N to 32°N) = 42,392 sq. km
24
23
22
21
20
19
18
17
16
15
14
13
12
11
10
9
8
7
6
5
4
3
2
1

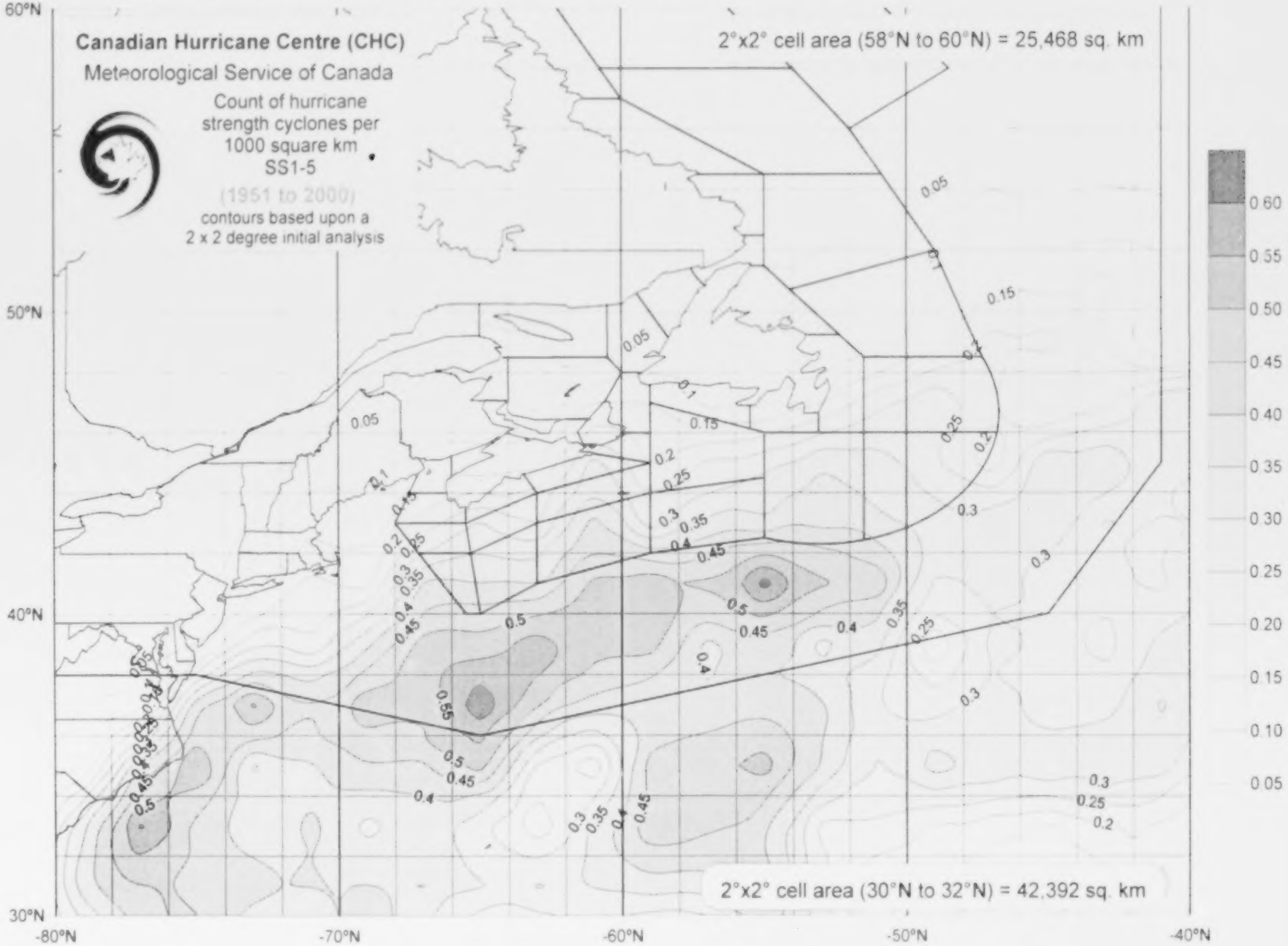
Range Map - crossings/hits per 1000 km² - 06°N to 72°N - 10°E to 110°W


Canadian Hurricane Centre (CHC)
Meteorological Service of Canada (MSC)
Storms of Tropical Origin
Crossings/Hits per 1000 sq. km
Hurricane SS1-5
1951 to 2000
Canadian Atlantic marine areas outlined in red
Canadian Hurricane Centre Response Zone
70° N
60° N
50° N
40° N
30° N
20° N
10° N
110° W
100° W
90° W
80° W
70° W
60° W
50° W
40° W
30° W
20° W
10° W
0
10° E

Contour Map - crossings/hits per 1000km^2 10°N to 60°N - 40°W to 100°W

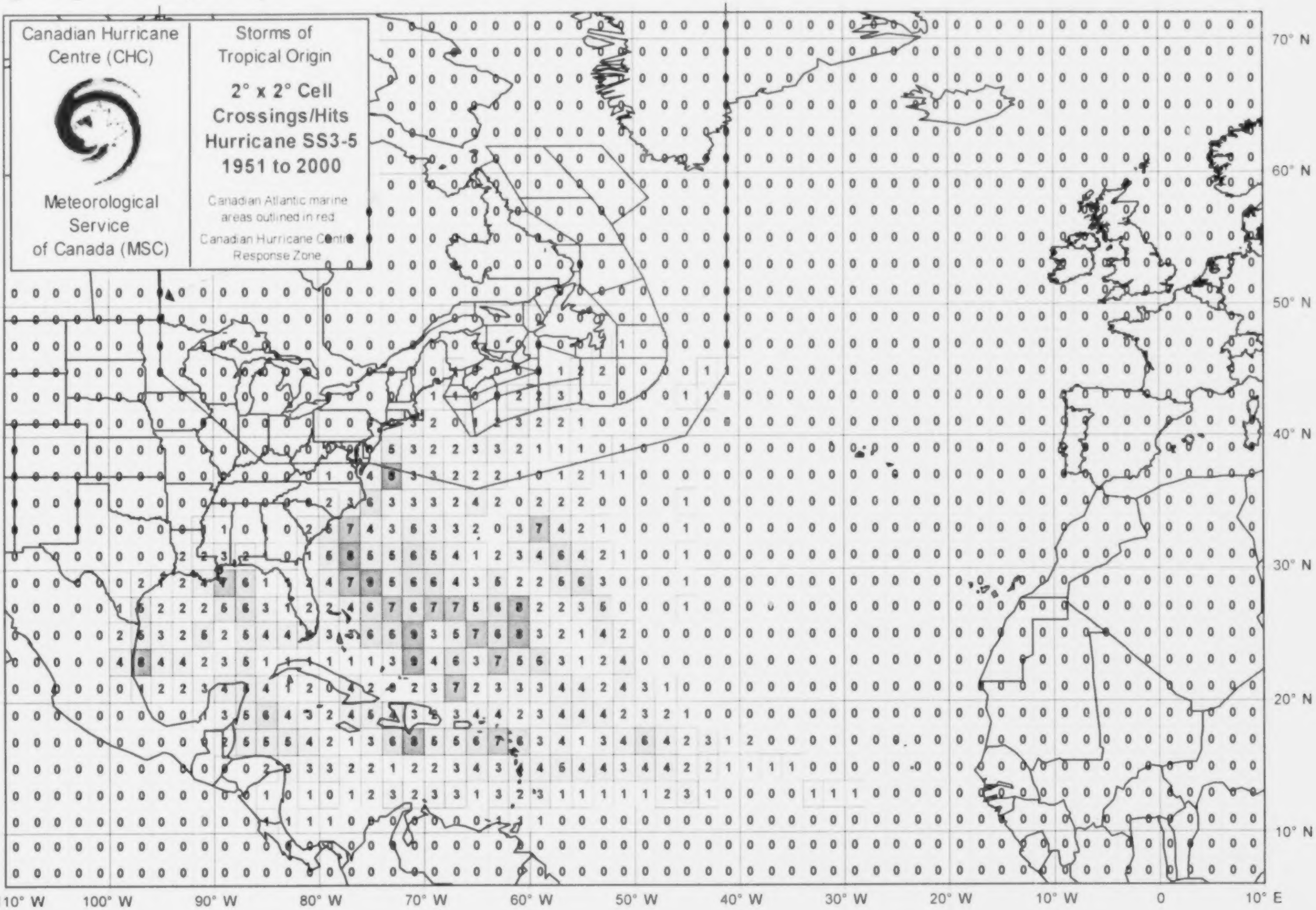

Canadian Hurricane Centre (CHC)
Meteorological Service of Canada
Count of hurricane strength cyclones per 1000 square km
SS1-5
(1951 to 2000)
contours based upon a 2 x 2 degree initial analysis
2°x2° cell area (58°N to 60°N) = 25,468 sq. km
2°x2° cell area (10°N to 12°N) = 48,550 sq. km
60°N
50°N
40°N
30°N
20°N
10°N
-100°W
-90°W
-80°W
-70°W
-60°W
-50°W
-40°W
0.60
0.55
0.50
0.45
0.40
0.35
0.30
0.25
0.20
0.15
0.10
0.05

Contour Map (zoom) - crossings/hits per 1000km² 30°N to 60°N - 40°W to 80°W

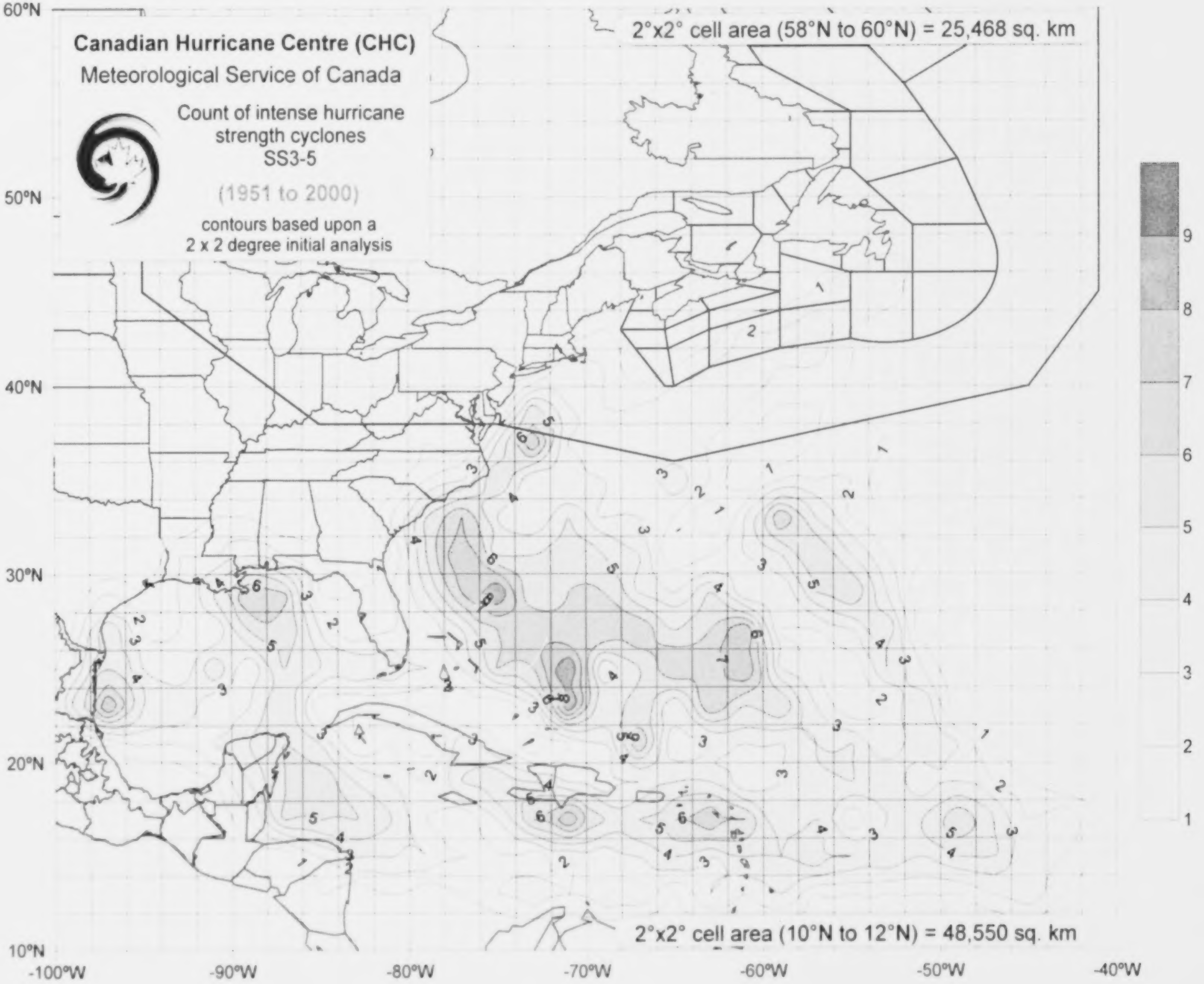

Canadian Hurricane Centre (CHC)
Meteorological Service of Canada
Count of hurricane strength cyclones per 1000 square km SS1-5
(1951 to 2000)
contours based upon a 2 x 2 degree initial analysis
2°x2° cell area (58°N to 60°N) = 25,468 sq. km
2°x2° cell area (30°N to 32°N) = 42,392 sq. km
60°N
50°N
40°N
30°N
-80°N
-70°N
-60°N
-50°N
-40°N
0.60
0.55
0.50
0.45
0.40
0.35
0.30
0.25
0.20
0.15
0.10
0.05

1951 to 2000 – Intense Hurricane Force Storms (SS3-5)

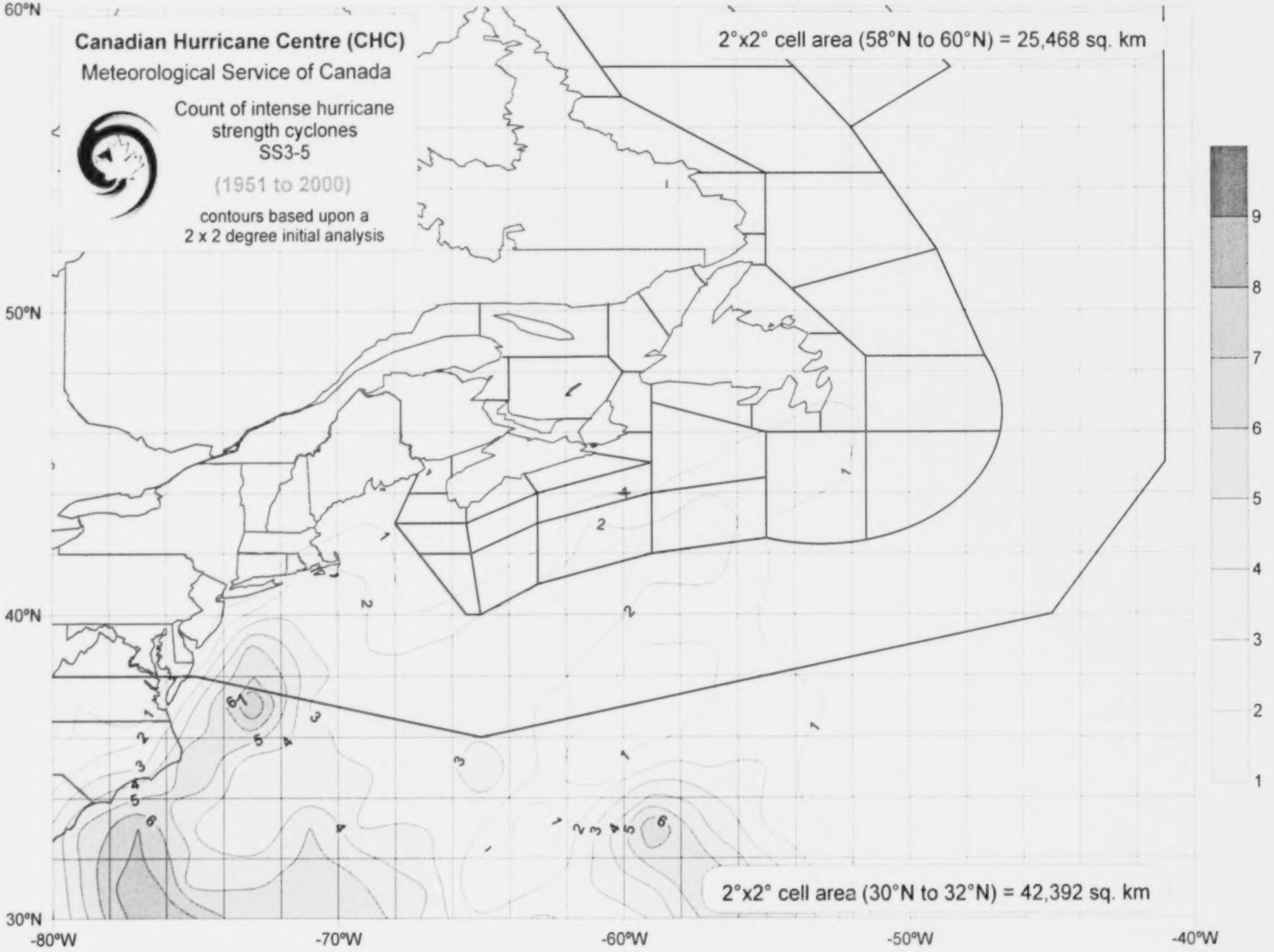
Range Map - crossings/hits per cell - 06°N to 72°N - 10°E to 110°W


Canadian Hurricane Centre (CHC)
Meteorological Service of Canada (MSC)
Storms of Tropical Origin
2° x 2° Cell Crossings/Hits Hurricane SS3-5 1951 to 2000
Canadian Atlantic marine areas outlined in red
Canadian Hurricane Centre Response Zone
70° N
60° N
50° N
40° N
30° N
20° N
10° N
110° W
100° W
90° W
80° W
70° W
60° W
50° W
40° W
30° W
20° W
10° W
0
10° E

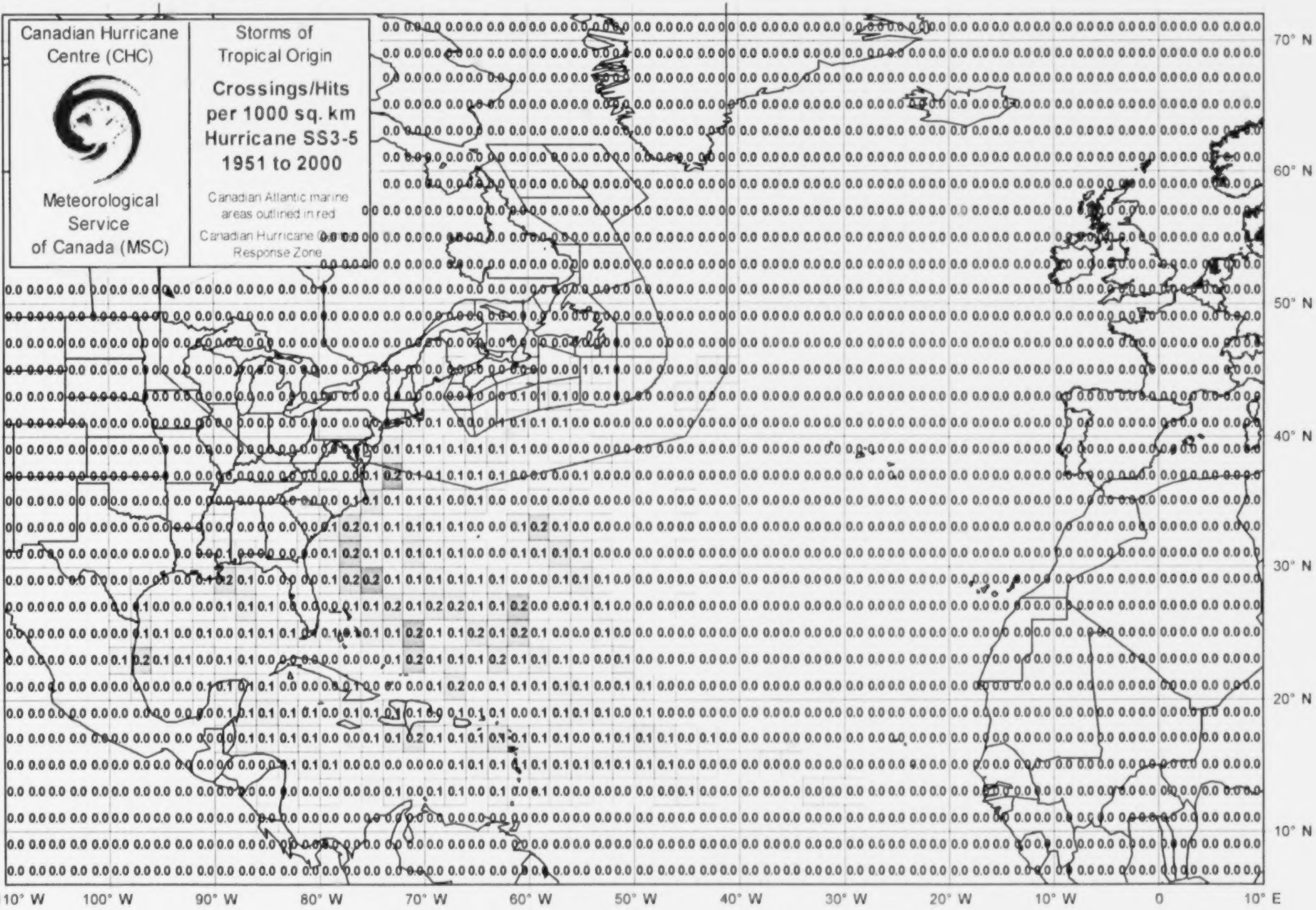
Contour Map - crossings/hits per cell - 10°N to 60°N - 40°W to 100°W


Canadian Hurricane Centre (CHC)
Meteorological Service of Canada
Count of intense hurricane strength cyclones
SS3-5
(1951 to 2000)
contours based upon a 2 x 2 degree initial analysis
2°x2° cell area (58°N to 60°N) = 25,468 sq. km
2°x2° cell area (10°N to 12°N) = 48,550 sq. km
60°N
50°N
40°N
30°N
20°N
10°N
-100°W
-90°W
-80°W
-70°W
-60°W
-50°W
-40°W
9
8
7
6
5
4
3
2
1

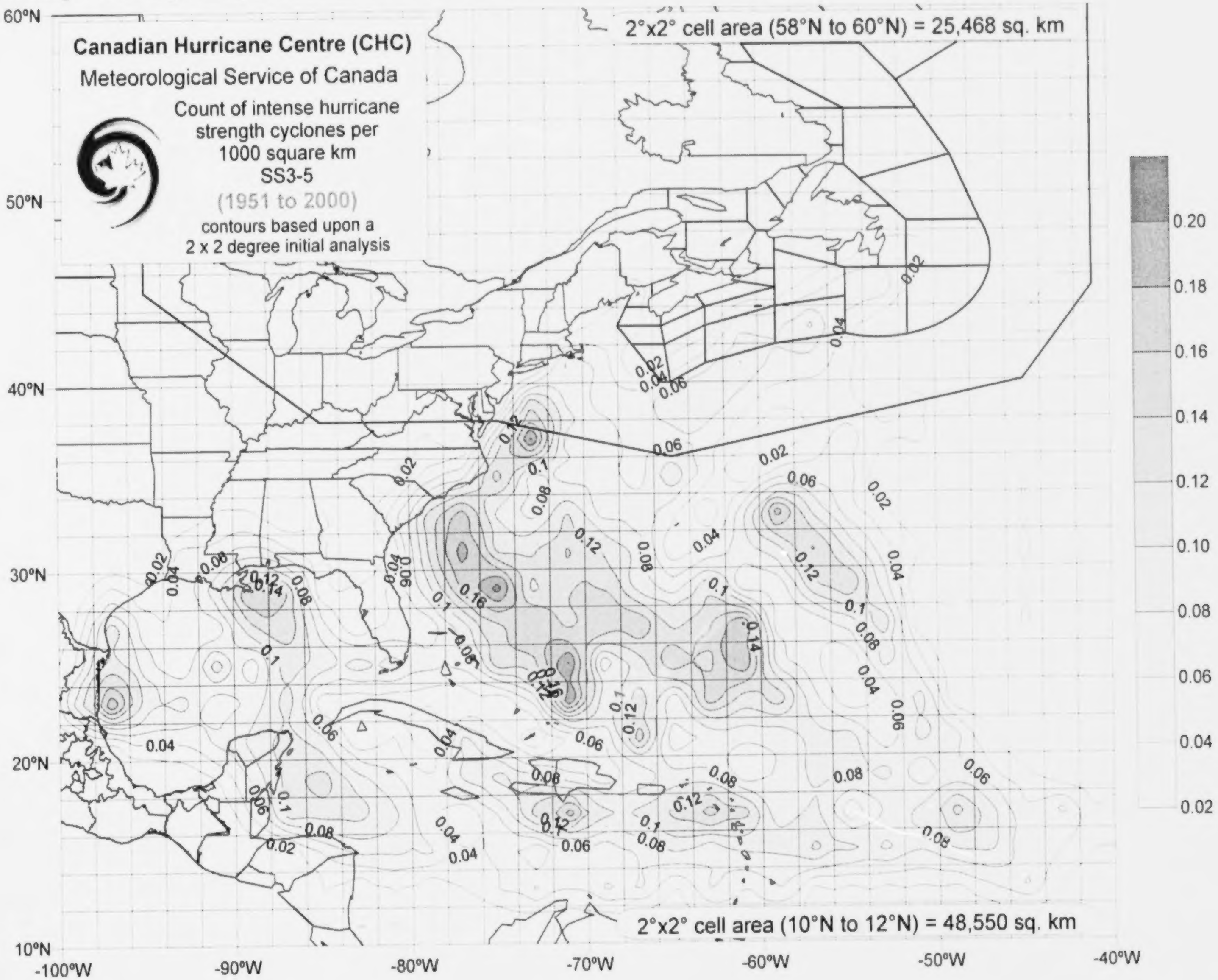
Contour Map (zoom)- crossings/hits per cell - 30°N to 60°N - 40°W to 80°W


Canadian Hurricane Centre (CHC)
Meteorological Service of Canada
Count of intense hurricane strength cyclones SS3-5
(1951 to 2000)
contours based upon a 2 x 2 degree initial analysis
2°x2° cell area (58°N to 60°N) = 25,468 sq. km
2°x2° cell area (30°N to 32°N) = 42,392 sq. km
60°N
50°N
40°N
30°N
-80°W
-70°W
-60°W
-50°W
-40°W
1
2
3
4
5
6
7
8
9

Range Map - crossings/hits per 1000km^2 - 06°N to 72°N - 10°E to 110°W


Canadian Hurricane Centre (CHC)
Meteorological Service of Canada (MSC)
Storms of Tropical Origin
Crossings/Hits per 1000 sq. km Hurricane SS3-5 1951 to 2000
Canadian Atlantic marine areas outlined in red
Canadian Hurricane Centre Response Zone
70° N
60° N
50° N
40° N
30° N
20° N
10° N
110° W
100° W
90° W
80° W
70° W
60° W
50° W
40° W
30° W
20° W
10° W
0
10° E

Contour Map - crossings/hits per 1000km^2 - 10°N to 60°N - 40°W to 100°W



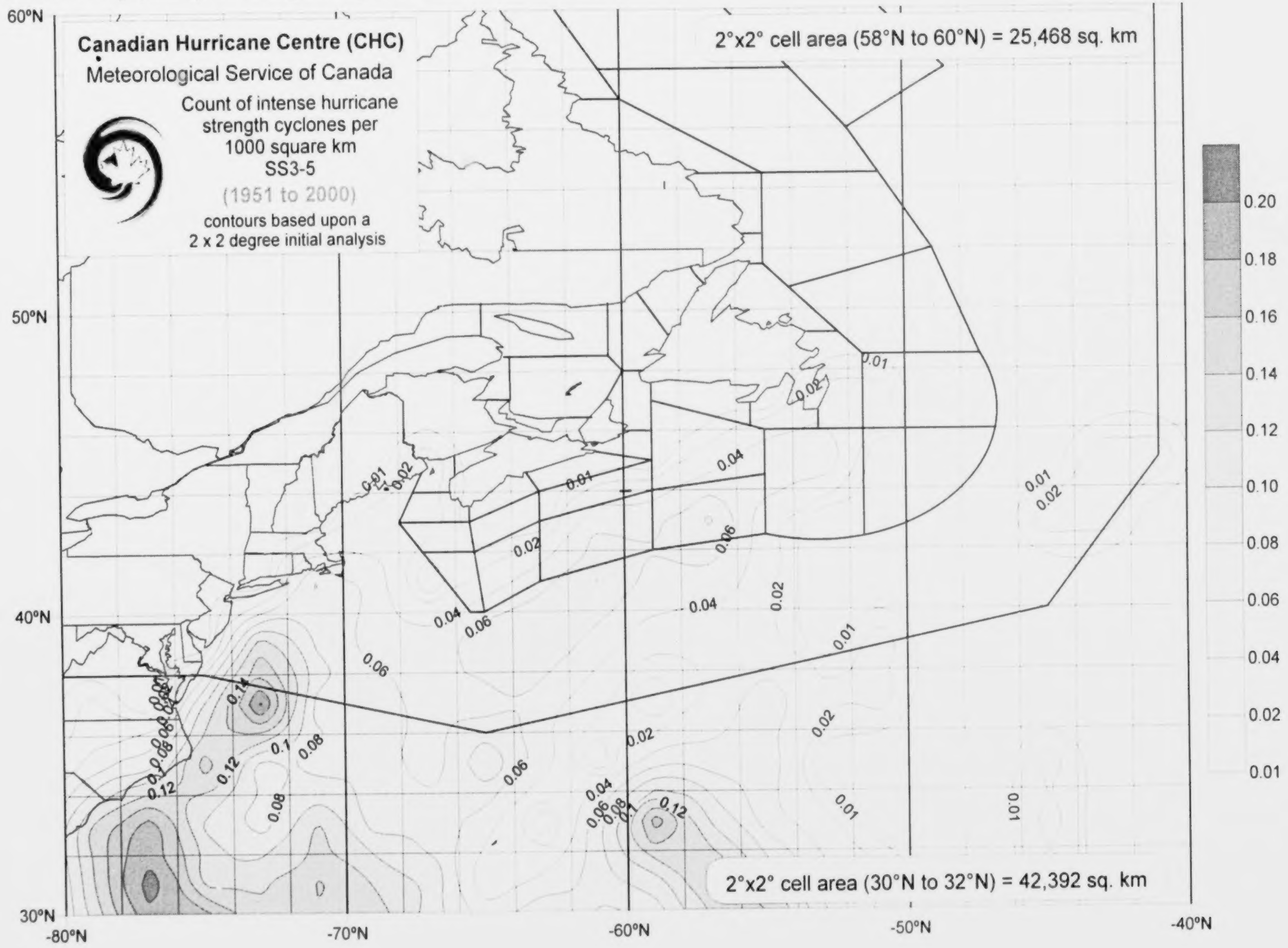
Canadian Hurricane Centre (CHC)
Meteorological Service of Canada
Count of intense hurricane strength cyclones per 1000 square km
SS3-5
(1951 to 2000)
contours based upon a 2 x 2 degree initial analysis

2°x2° cell area (58°N to 60°N) = 25,468 sq. km

2°x2° cell area (10°N to 12°N) = 48,550 sq. km

60°N
50°N
40°N
30°N
20°N
10°N
-100°W
-90°W
-80°W
-70°W
-60°W
-50°W
-40°W
0.20
0.18
0.16
0.14
0.12
0.10
0.08
0.06
0.04
0.02
0.02
0.04
0.06
0.08
0.1
0.12
0.14
0.16

Contour Map (zoom)- crossings/hits per 1000km^2 - 30°N to 60°N - 40°W to 80°W


Canadian Hurricane Centre (CHC)
Meteorological Service of Canada
Count of intense hurricane strength cyclones per 1000 square km
SS3-5
(1951 to 2000)
contours based upon a 2 x 2 degree initial analysis
2°x2° cell area (58°N to 60°N) = 25,468 sq. km
2°x2° cell area (30°N to 32°N) = 42,392 sq. km
60°N
50°N
40°N
30°N
-80°N
-70°N
-60°N
-50°N
-40°N
0.20
0.18
0.16
0.14
0.12
0.10
0.08
0.06
0.04
0.02
0.01
0.01
0.02
0.04
0.06
0.08
0.1
0.12
0.14

PREFERRED STORM TRACKS

The Barks and Richards Atlantic regional study of 1986 determined that tropical storms show a tendency to followed preferred tracks. Three primary offshore tracks were identified. A minor track through New Brunswick and a second minor track through western Newfoundland were also extracted from the 35 year data set (see Appendix II).

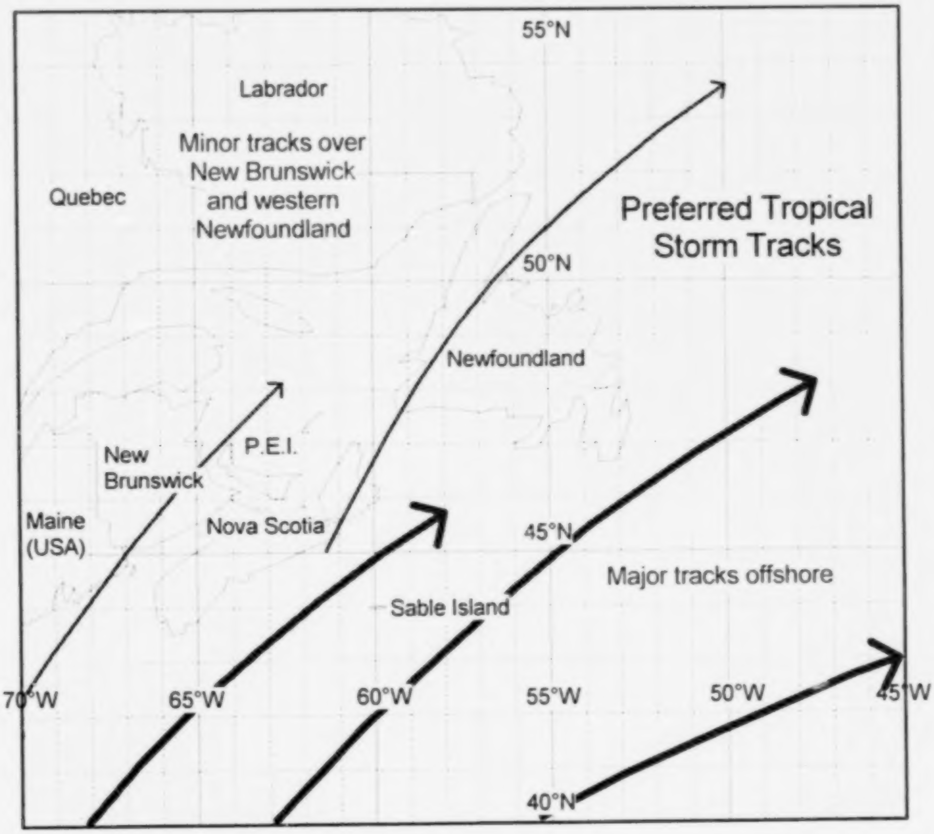

55°N
Labrador
Minor tracks over
New Brunswick
and western
Newfoundland
Quebec
Preferred Tropical
Storm Tracks
50°N
Newfoundland
New
Brunswick
P.E.I.
Maine
(USA)
Nova Scotia
45°N
Major tracks offshore
Sable Island
70°W
65°W
60°W
55°W
50°W
45°W
40°N

Figure 1: The Climatology of Tropical Cyclones in Atlantic Canada Barks and Richards 1986 (period: 1949 to 1983)

The 100 year one-degree by one-degree grid statistics generated in this project (see Grid section) and the frequency contour charts derived from them also show patterns that *might* be interpreted as storm tracks. The contour charts show a distinctive southwest to northeast orientation of the higher frequency cells. The map below is a representation of the grid cell hits (all intensities) for the 100-year period 1901 to 2000. The original Barks and Richards tracks have been added. It is clear that some of the *'tracks'* originally identified are also evident in the larger dataset. Other possible *tracks* can also be drawn.

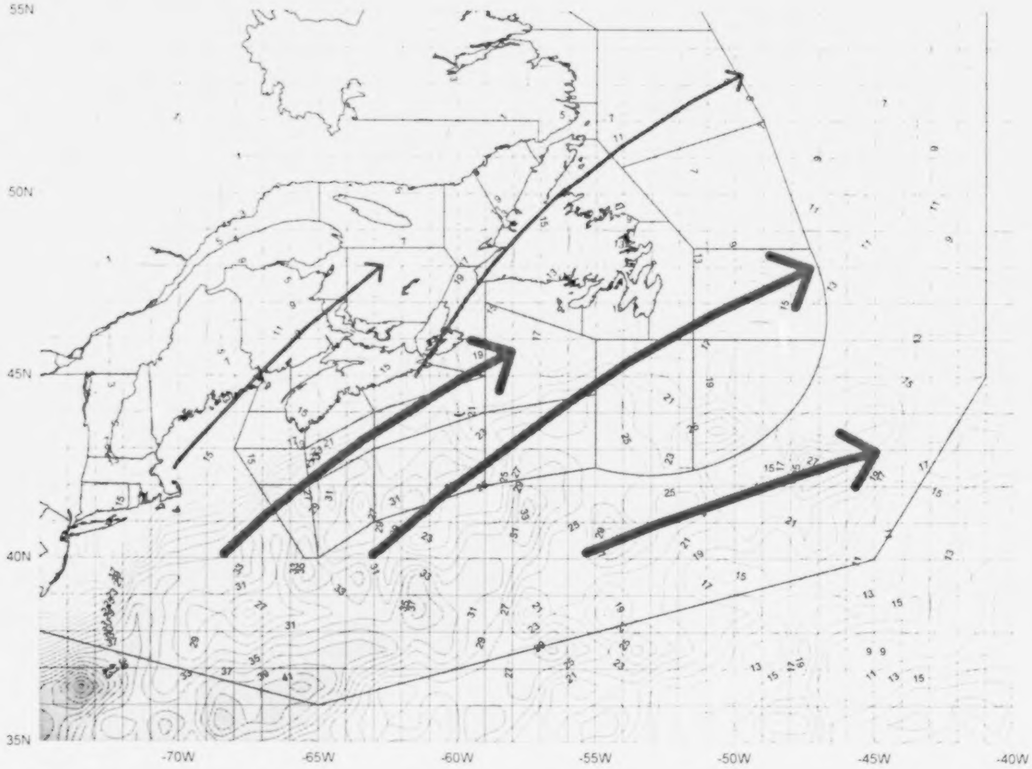

55N
50N
45N
40N
35N
-70W
-65W
-60W
-55W
-50W
-45W
-40W

Figure 2: Tropical Storm Frequency 1901 to 2000 (all intensities). Red arrows are the Barks and Richards Tracks

Obviously, the data could be interpreted in a number of ways. As an example, the far east Barks and Richards track could be drawn with a more northerly tilt.

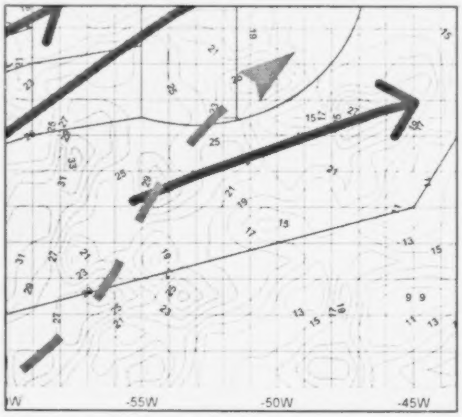

W
-55W
-50W
-45W

Figure 3: Alternate Track

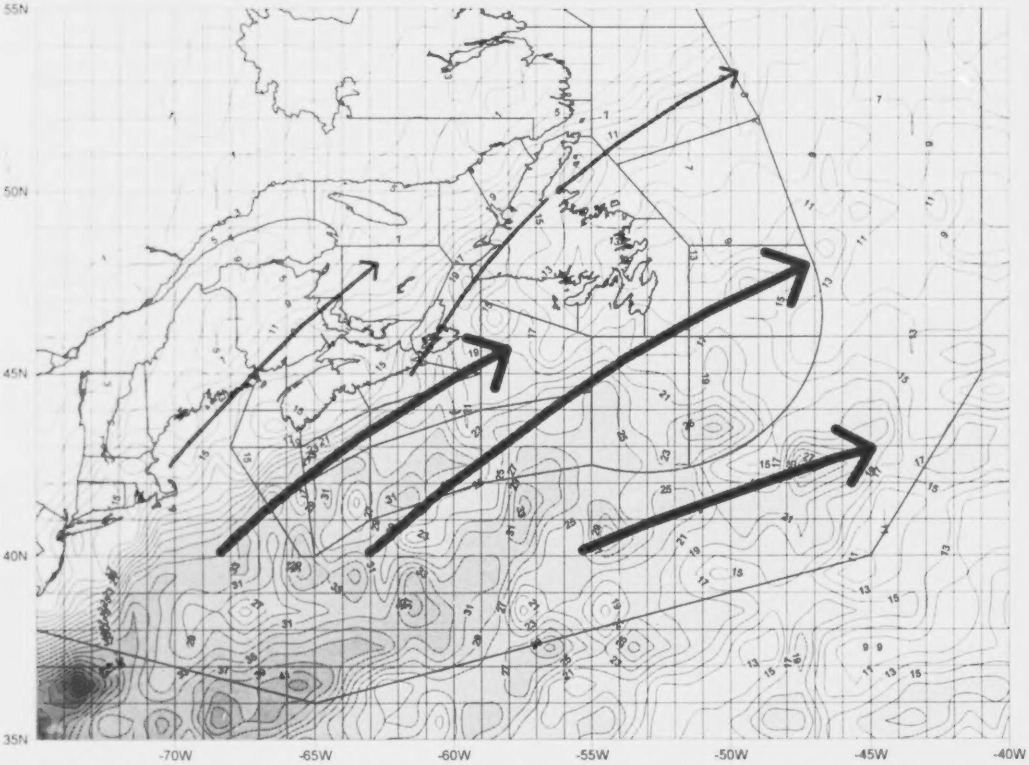

55N
50N
45N
40N
35N
-70W
-65W
-60W
-55W
-50W
-45W
-40W

Figure 2: Tropical Storm Frequency 1901 to 2000 (all intensities). Red arrows are the Barks and Richards Tracks

Obviously, the data could be interpreted in a number of ways. As an example, the far east Barks and Richards track could be drawn with a more northerly tilt.

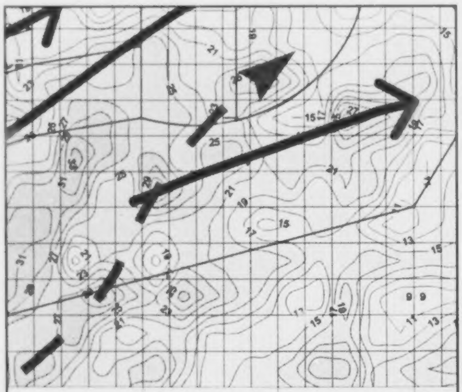

W
-55W
-50W
-45W

Figure 3: Alternate Track

Caution should be exercised when using these charts as an indicator of storm tracks. The original statistics were based upon a one-degree by one-degree examination of the storm frequencies (see grid statistics section). Tropical storms were counted inside a cell regardless of the actual path a storm took... it just had to cross the cell boundary.

The historical archive shows tropical storms moving in almost any direction over Atlantic Canada (see example below); however, the predominate direction is towards the northeast. This is reasonable in view of the fact that these systems have often rounded the Bermuda high and are accelerating northeast ahead of a mid-latitude trough.

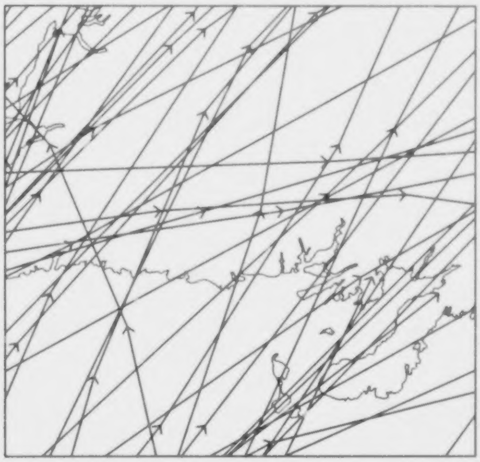


Figure 4: A general northeast track pattern is typical for storm tracks in mid latitudes. However, note the variation in tracks over the south coast of Newfoundland. Eastward and northwestward tracks are also contributing to the storm counts in a number of grid cells.

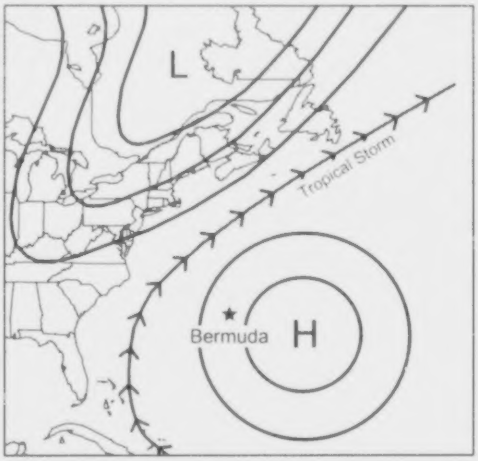
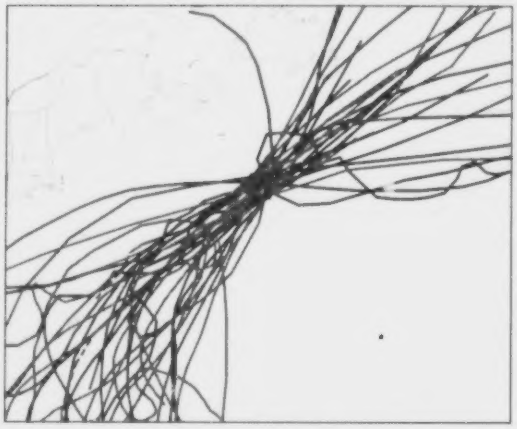


Figure 5: Typical Atlantic coast storm track. Tropical storms are often channeled between the semi-permanent Bermuda high and an approaching trough line.

The variation in track direction can be further highlighted by choosing an area and plotting all tracks through that boundary as shown below.

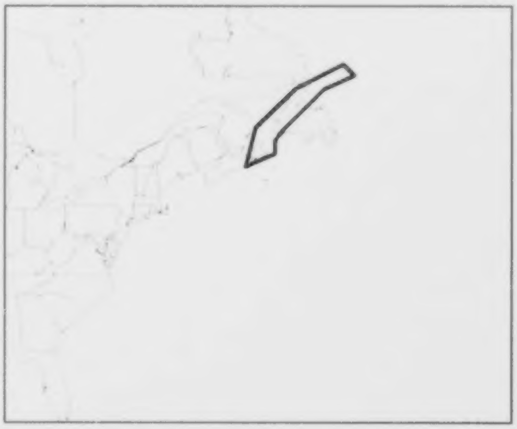


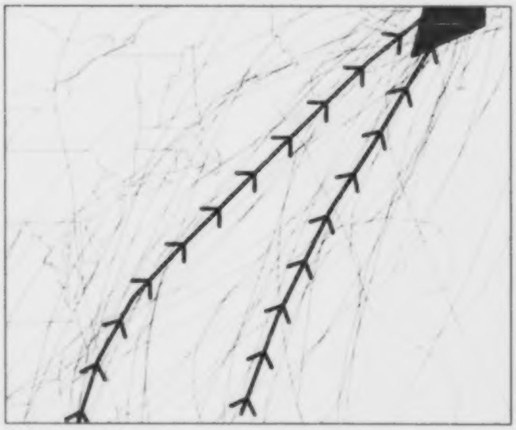
The one degree cell centered on 41.5N 57.5W experienced 34 storms (all intensities) during the 20th century.

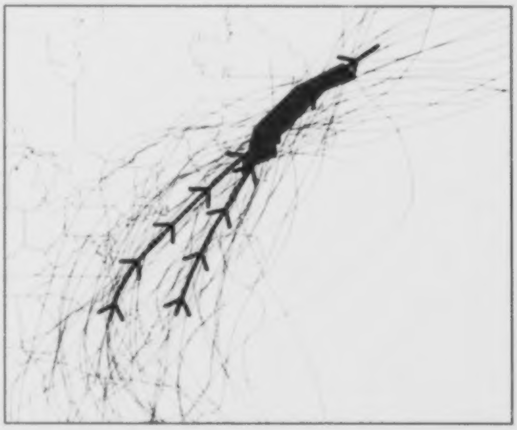
Clearly the predominate track direction or the average of all tracks is southwest to northeast but note the high variability.

Often, high storm frequency areas are found at what appears to be the intersection of more than one possible track.

The area from Cape Breton Island across the west side of Newfoundland has a relatively high incidence rate. Note that these storms emerge from the area east of Cape Hatteras with many of the storms clustered near Hatteras and a second cluster farther offshore. One might define two tracks which cross near Cabot Strait.

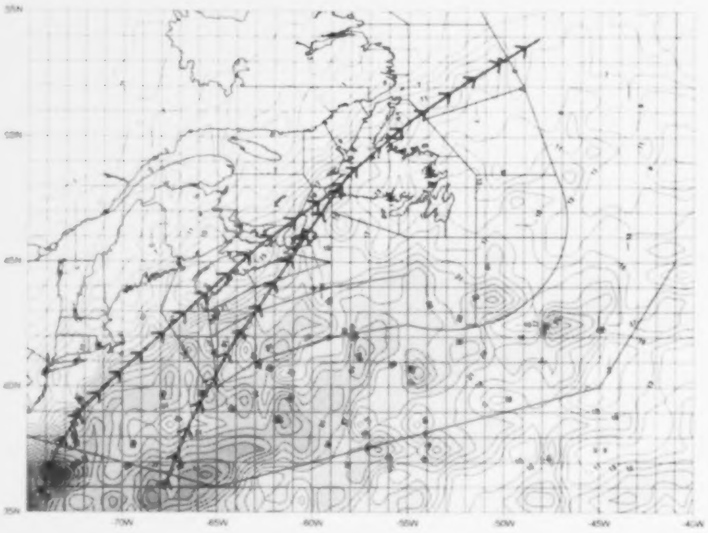






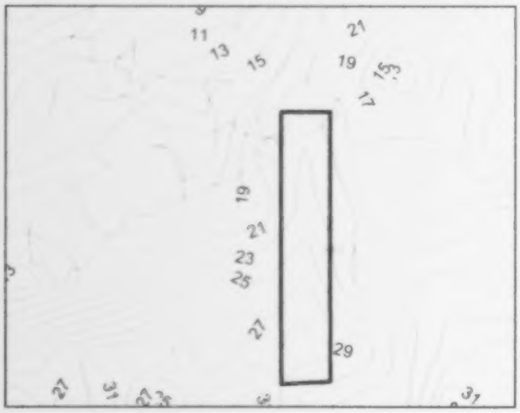
Over the search box area, these tracks mirror the high grid cell frequencies (this is not meaningful since a geographic query was performed to select only storms that entered the search box).

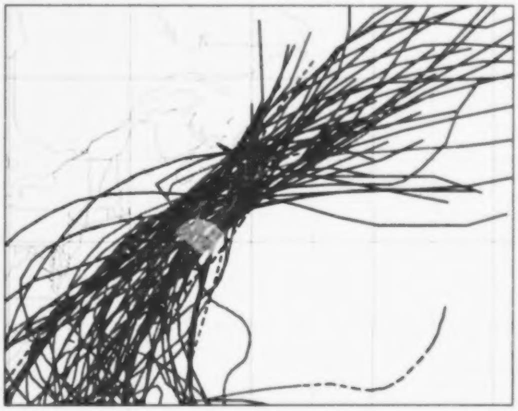
Southwest of Nova Scotia, the tracks are not completely coincident with the high frequency axes.



Perhaps a better example of the problem can be shown in the area stretching from Sable Island to southern Cape Breton Island. A pronounced axis of high track crossings can be seen there (left below).

Storms that transit this area are generally moving from southwest to northeast. The north to south axis of highest frequency storm hits is not aligned with the prevailing track direction.

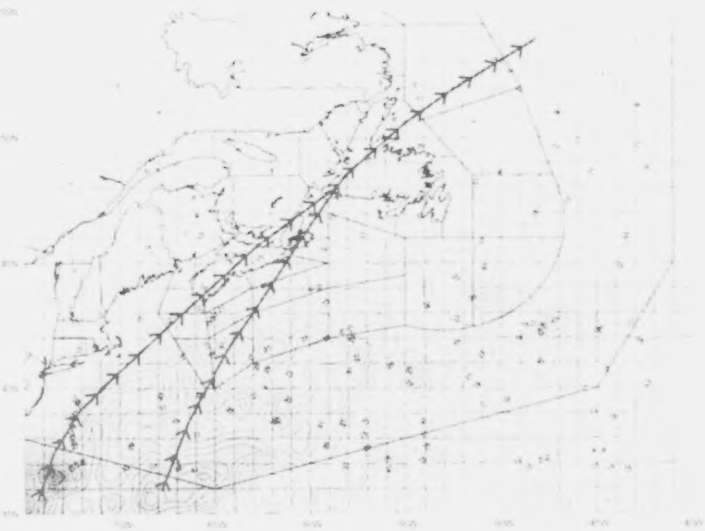




Yet another approach can be taken. A series of boxes can be defined along a proposed track (line through highest historical storm occurrences). Tracks that moved through all the boxes can be extracted and compared against those that crossed the northeastern-most

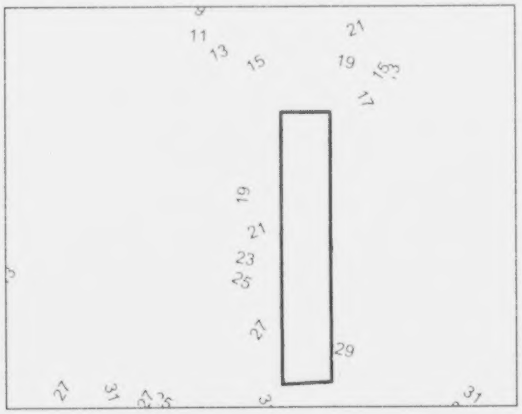
Over the search box area, these tracks mirror the high grid cell frequencies (this is not meaningful since a geographic query was performed to select only storms that entered the search box).

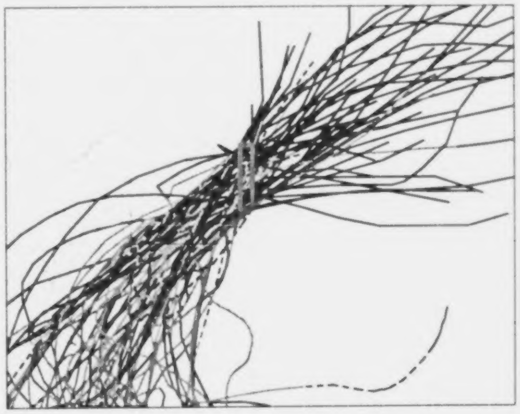
Southwest of Nova Scotia, the tracks are not completely coincident with the high frequency axes.



Perhaps a better example of the problem can be shown in the area stretching from Sable Island to southern Cape Breton Island. A pronounced axis of high track crossings can be seen there (left below).

Storms that transit this area are generally moving from southwest to northeast. The north to south axis of highest frequency storm hits is not aligned with the prevailing track direction.





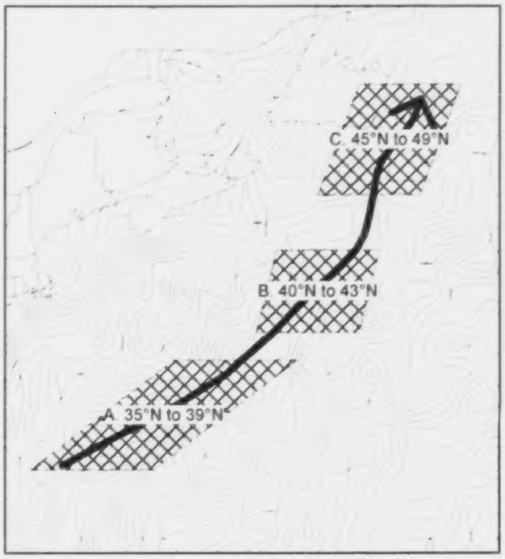
Yet another approach can be taken. A series of boxes can be defined along a proposed track (line through highest historical storm occurrences). Tracks that moved through all the boxes can be extracted and compared against those that crossed the northeastern-most box. One can then gain a sense of the track scatter and make some value judgment as to the validity of the proposed track. The series of maps below illustrate the process.

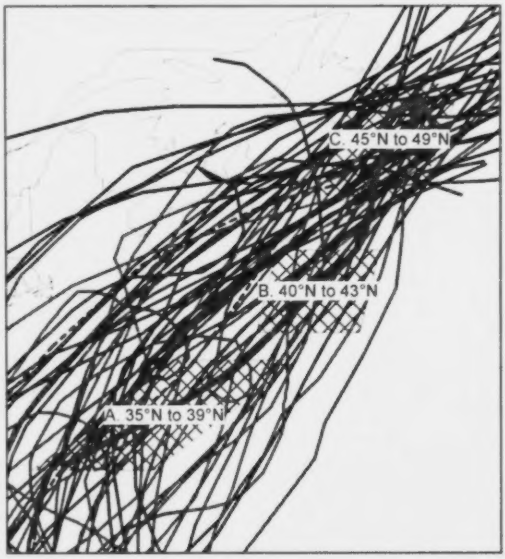
Three boxes are centered upon a possible track (right).

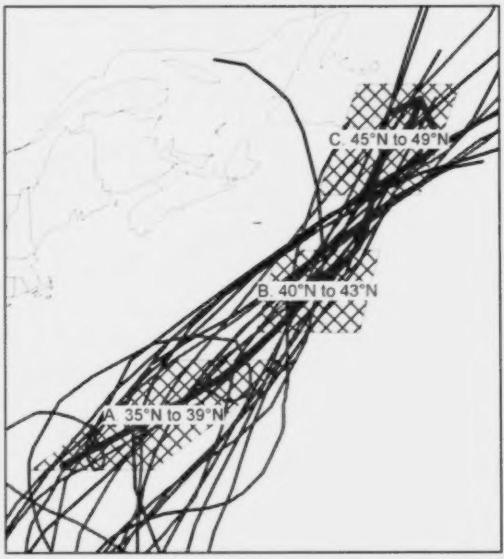
58 storms moved through the northern-most box between 1901 and 2000. Many of those storms approached from directions other than the proposed track path (below left).

Only 21 (36%) of the storms moved through all of the boxes. A visual track examination shows that even those 21 are widely dispersed over the southern box (below right).

The proposed track does not account for the bulk of the storms that moved over, or just east, of the Avalon Peninsula.


C. 45°N to 49°N
B. 40°N to 43°N
A. 35°N to 39°N

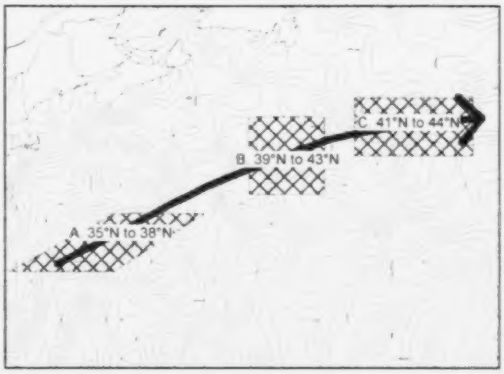

C. 45°N to 49°N
B. 40°N to 43°N
A. 35°N to 39°N

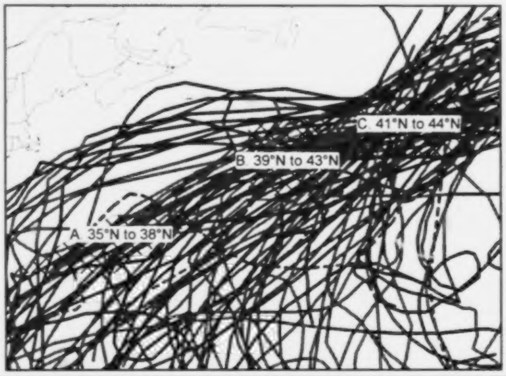

C. 45°N to 49°N
B. 40°N to 43°N
A. 35°N to 39°N

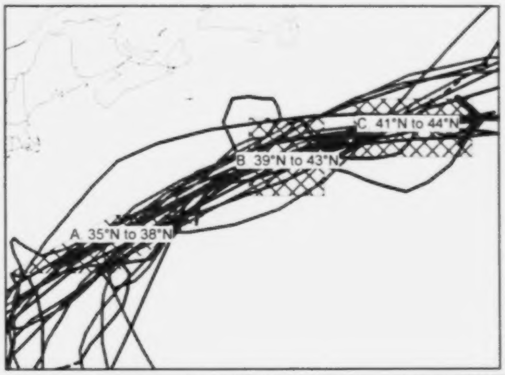
We could redefine our track based on this information. Perhaps a more eastward tilt along an alternate axis of high storm frequency would have resulted in a better fit (right).

In this case, 84 storms passed through the easternmost box (below left). Only, 18 (21.4%) of these actually passed through all three boxes (below right).

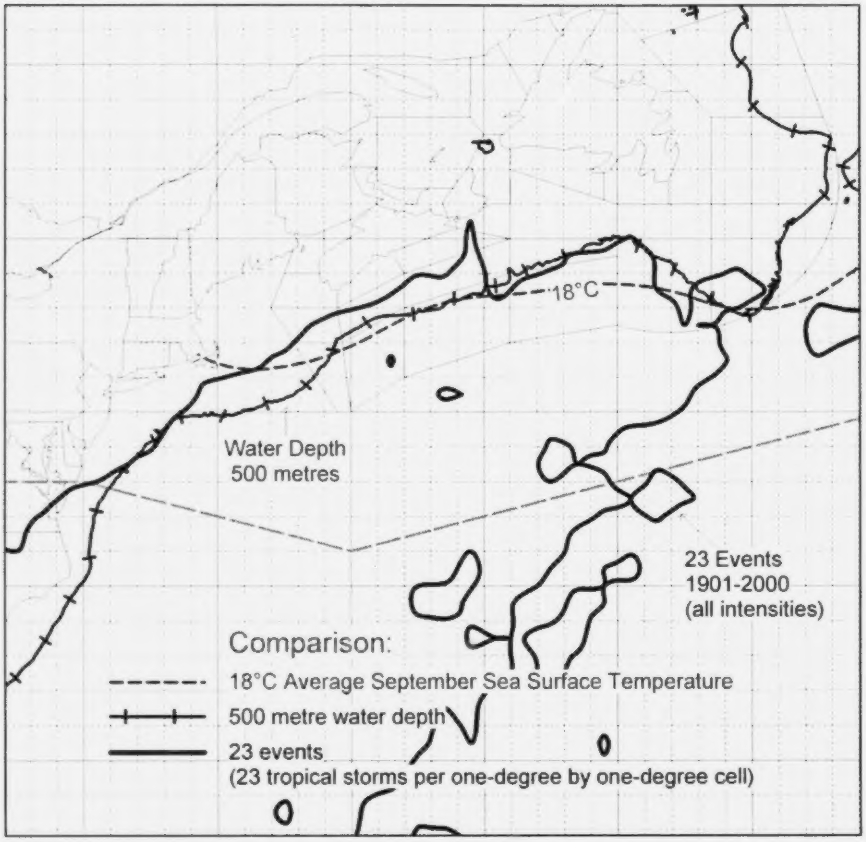
Again, the proposed track is not providing useful information.



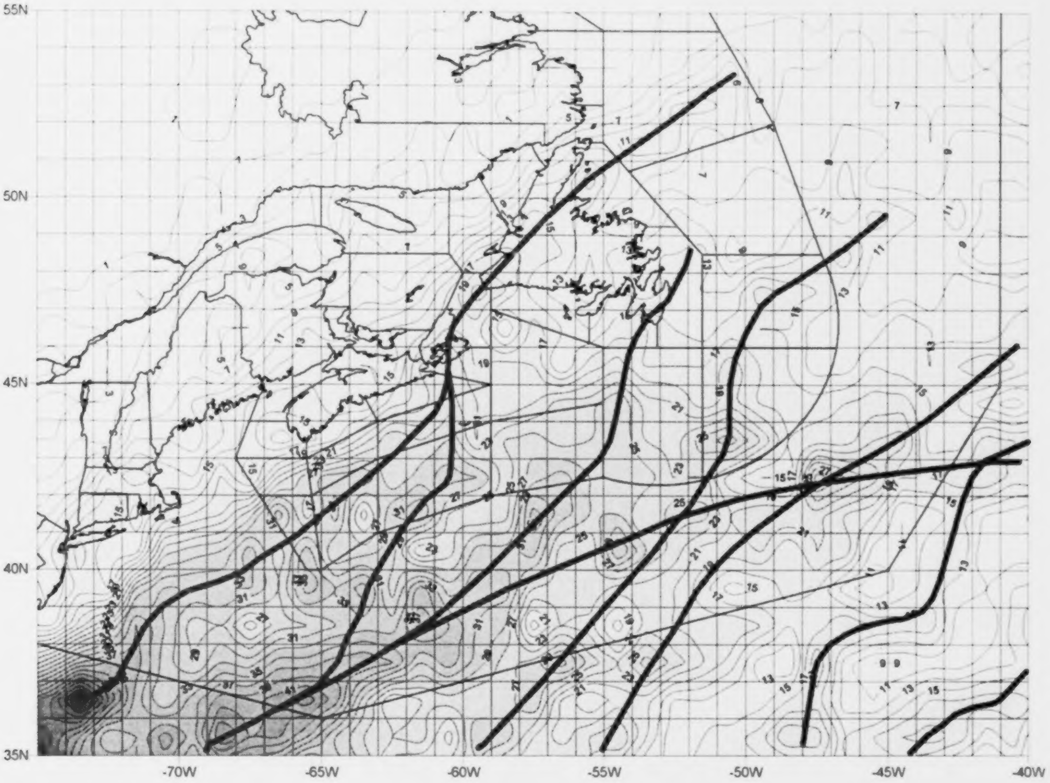


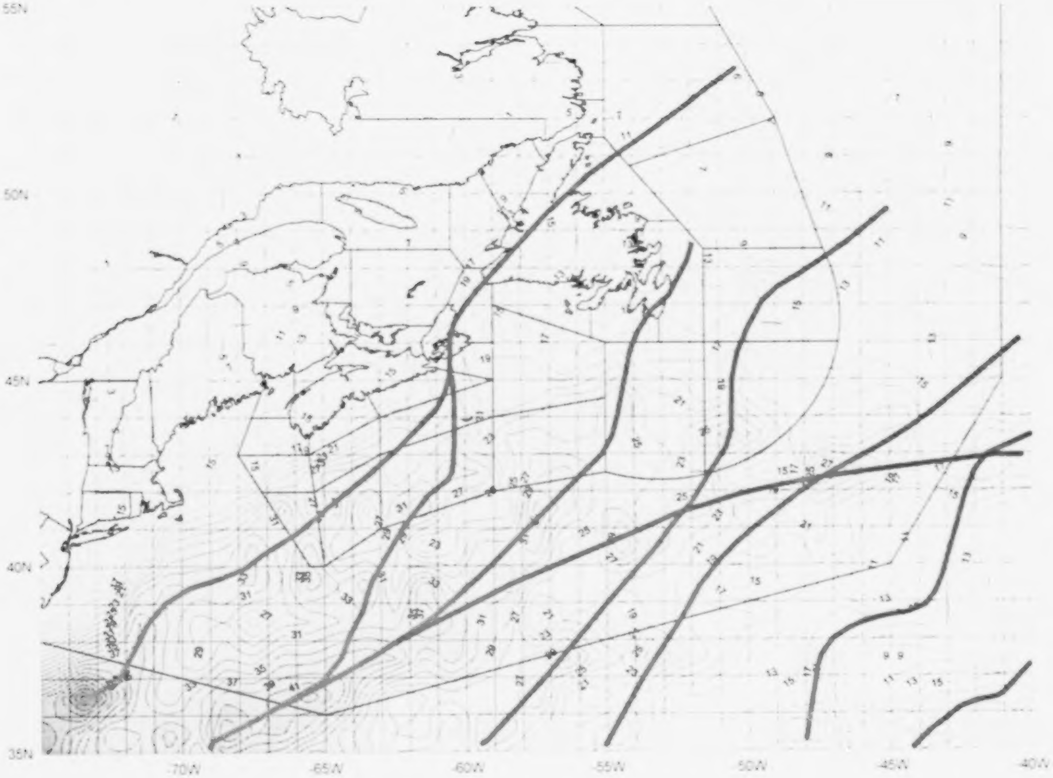


In the end, the fine detail observed on the strike frequency contour charts may be more to do with the limited dataset and the analysis which was done on a fairly fine grid. The generally high storm frequencies observed south of Nova Scotia may simply be tied to warmer water temperatures, deeper water and the natural tendency for storms to dissipate as they move out of the tropics and into the hostile environment of the mid-latitudes. See the next figure for a comparison of some of these factors.

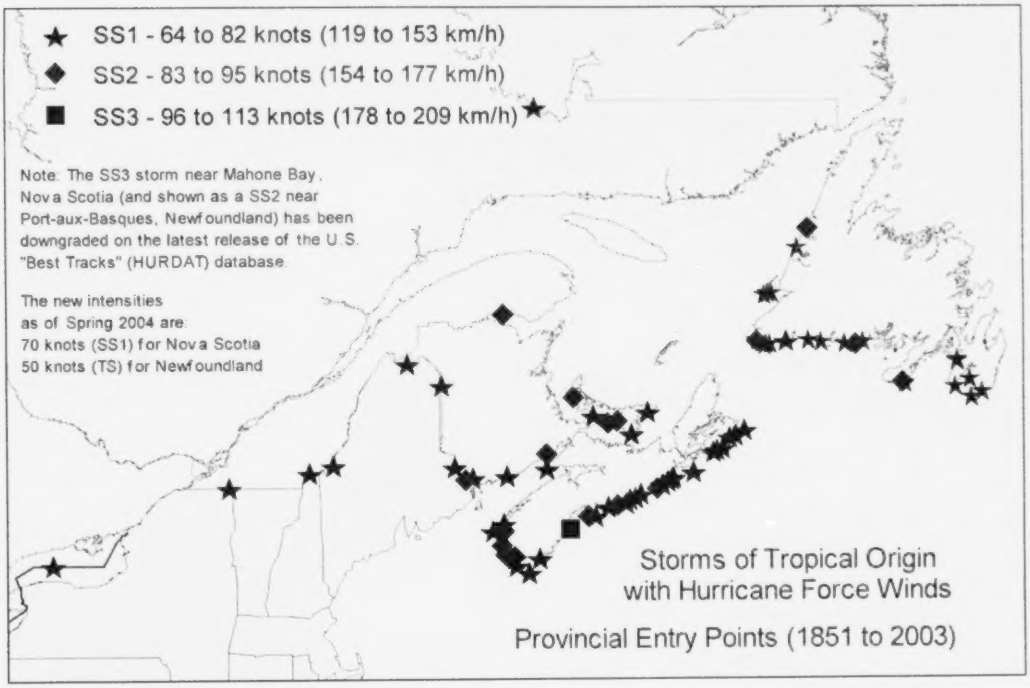

18°C
Water Depth
500 metres
23 Events
1901-2000
(all intensities)
Comparison:
18°C Average September Sea Surface Temperature
500 metre water depth
23 events
(23 tropical storms per one-degree by one-degree cell)

Summary:
Visual track examination and meteorological theory indicate a predominant northeastward storm motion. Therefore, it is may be reasonable to suggest that many storms do follow the high frequency axes on the storm frequency chart below since the high frequency axes are oriented in a northeasterly direction. However, storm to storm directional variability is very high. For this reason, the following map should be interpreted as showing *axes of maximum storm probability* rather than preferred tracks. It may prove useful in some circumstances.


55N
50N
45N
40N
35N
-70W
-65W
-60W
-55W
-50W
-45W
-40W


55N
50N
45N
40N
35N
-70W
-65W
-60W
-55W
-50W
-45W
-40W

Landfalling Hurricanes - Eastern Canada


★ SS1 - 64 to 82 knots (119 to 153 km/h)
◆ SS2 - 83 to 95 knots (154 to 177 km/h)
■ SS3 - 96 to 113 knots (178 to 209 km/h)
Note: The SS3 storm near Mahone Bay, Nova Scotia (and shown as a SS2 near Port-aux-Basques, Newfoundland) has been downgraded on the latest release of the U.S. "Best Tracks" (HURDAT) database.
The new intensities as of Spring 2004 are:
70 knots (SS1) for Nova Scotia
50 knots (TS) for Newfoundland
Storms of Tropical Origin with Hurricane Force Winds
Provincial Entry Points (1851 to 2003)

Tropical storms of hurricane strength receive considerable media and public attention when making landfall. These storms carry winds in excess of 63 knots (117 km/h) and some wind related damage is always expected. Trees are vulnerable during the warm weather months (leaves allow the wind to exert considerable force - frozen ground which can hold a tree in place in the winter is not a factor during hurricane season). All tropical and extra-tropical storms can result in heavy rainfalls over short periods of time with flooding being a common problem.

Historical hurricane landfall locations have been documented in this section. Because of the significance of these events, the entire storm archive has been used… all events from 1851 to 2003 have been catalogued[#].

#	• The 1851 to 2001 HURDAT file upon which this publication is based was used for that time period. • The 1851 to 2003 HURDAT file released in the Spring of 2004 was used for the 2002 and 2003 events. • Because of the significance of the Aug 1893 storm, additional notes have been added in reference to changes found in the Spring 2004 release of HURDAT.

The following notes are applicable.

1. The term *"Landfall"* has been used very loosely here. Storms of tropical origin that strike Ontario or portions of Quebec do not have a *landfall* as such. This can be true for Labrador and New Brunswick as well if the storm approached from land. *The time displayed on the maps indicates the provincial border crossing time.*

2. All provincial border entry points have been indicated on the following maps. Therefore the same storm can show up in two or more provinces if hurricane strength winds were maintained.

3. As is the case throughout much of this document, no attempt is being made to designate other characteristics of the storm at landfall. The storm could have been classified as extra-tropical or it may have undergone mid-latitude redevelopment. The maximum sustained wind at landfall was the only factor used… if winds at landfall were in excess of 63 knots, then the storm qualified and was added to the maps below.

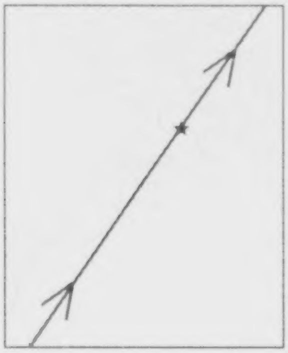
   The National Hurricane Center's storm archive contains many tracks that transit land. A hurricane cannot survive long over land; however, remnants of the storms are often identifiable for long periods of time after landfall. As noted above, some of these storms re-intensify as mid-latitude storms and often pack significant winds and rain. Hazel (1954) is carried into Ontario on the official archive. Hazel is a storm that re-intensified and was responsible for torrential rainfalls in southeastern Ontario with loss of life and heavy economic costs. Hazel is identified as a *hurricane strength* storm on the Ontario map that follows.

4. Significant wind and heavy rain can extend a considerable distance from the storm centre. The locations displayed on the following maps only represent storms that actually touched land. Many more hurricane force storms would have passed close to the Atlantic Provinces and could easily have resulted in severe weather. Other sections of this document can be used to isolate those events (see the one-by-one degree grid statistics and the city/point statistics).

5. All times are in *UTC* (*Universal Coordinated Time*… previously *Greenwich Mean Time*). There is a 4 hour time difference between *Atlantic Standard Time* and *UTC*. Example: 20:00 or 8:00 pm AST = 0000 *UTC* (the beginning of a new day) Through much of the hurricane season, Atlantic Canada is operating on *Daylight Savings Time*… a 3 hour time difference is applicable in this case and the new *UTC* day begins at 21:00 or 9:00 pm ADT.

6. The time of landfall, as shown on the maps, is an estimate based on the six hour track segment of the storm. An attempt has been made to estimate the times to one-half hour. In a few cases, a shorter time frame has been used to indicate that the storm hit land just before or just after the beginning or ending of a track segment. In all cases, the times are approximate.

7. Generally, the first provincial border crossing point was used. However, if the storm tracked across an offshore island first, then a point on the main provincial coastline was used. In one case, a storm was included that did not actually hit the main coastal area of Nova Scotia but did cross an offshore island (Unnamed storm #3, 1878). See the figures below.



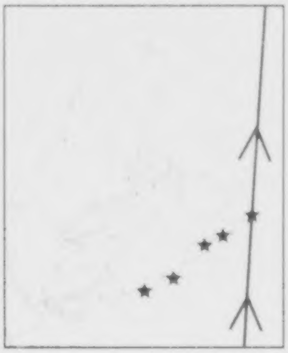
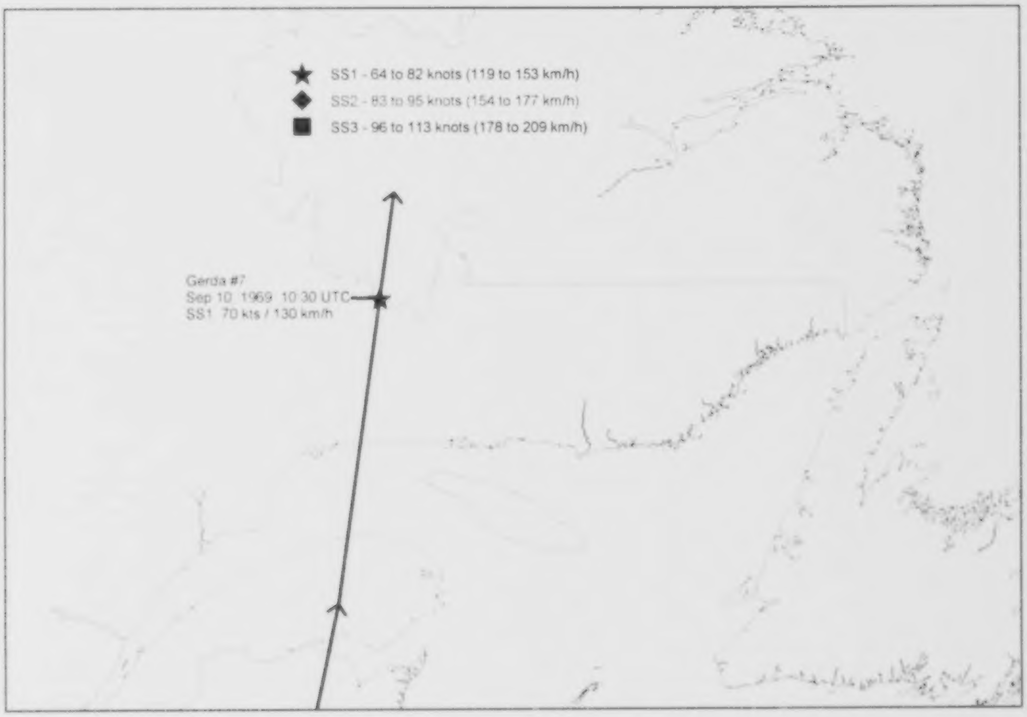


Table Column Definitions

Name	Date	Landfall UTC	#	Lat	Long	Max Wind (kts)	SS Scale	V (kts)	P (mb)	C

Name	The storm's official name (storms before 1950 were not named)
Date	The date that the storm crossed the provincial boundary (the first time)
Landfall UTC	An estimate of the time when the provincial border was crossed (Universal Coordinated Time)
#	The yearly storm number… 4 = the fourth storm that particular year
Lat	Latitude of the provincial border crossing point
Long	Longitude of the provincial border crossing point
Max Wind (kts)	The maximum sustained wind in knots at the time of provincial entry
SS Scale	The equivalent Saffir-Simpson Scale rating (based upon Max Wind (kts))
V (kts)	The storm translation speed (the speed of the storm center along the ground or over the ocean)
P (mb)	Storm central pressure in millibars
C	Comment 'S' (Subtropical stage) * tropical cyclone stage) E extratropical stage W wave stage - rarely used

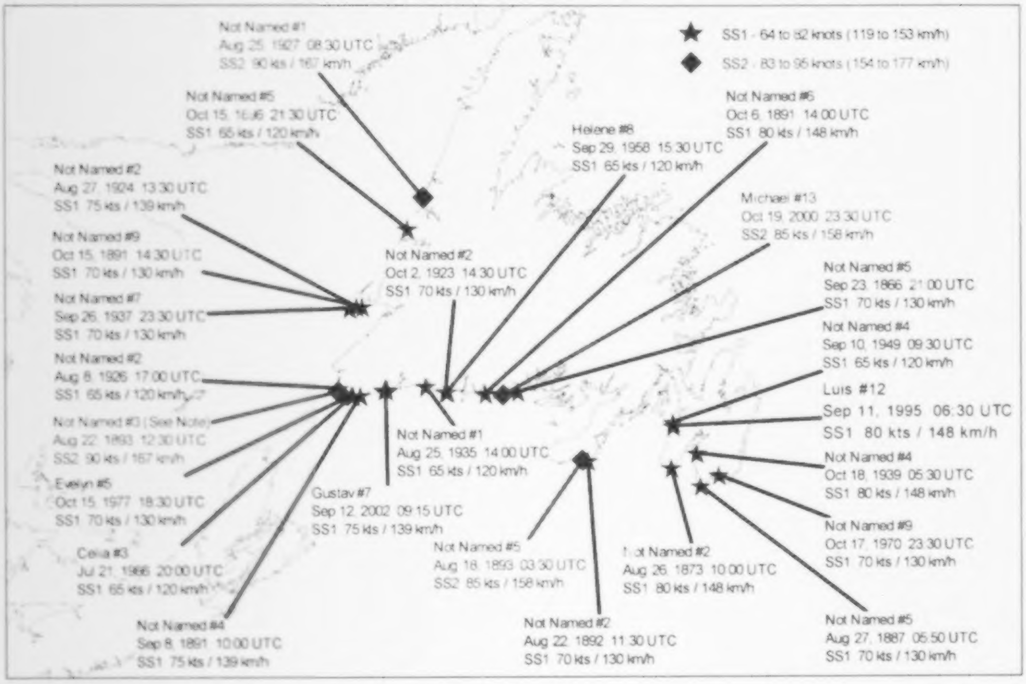
Newfoundland *'Landfalling'* Hurricanes (Labrador Only)

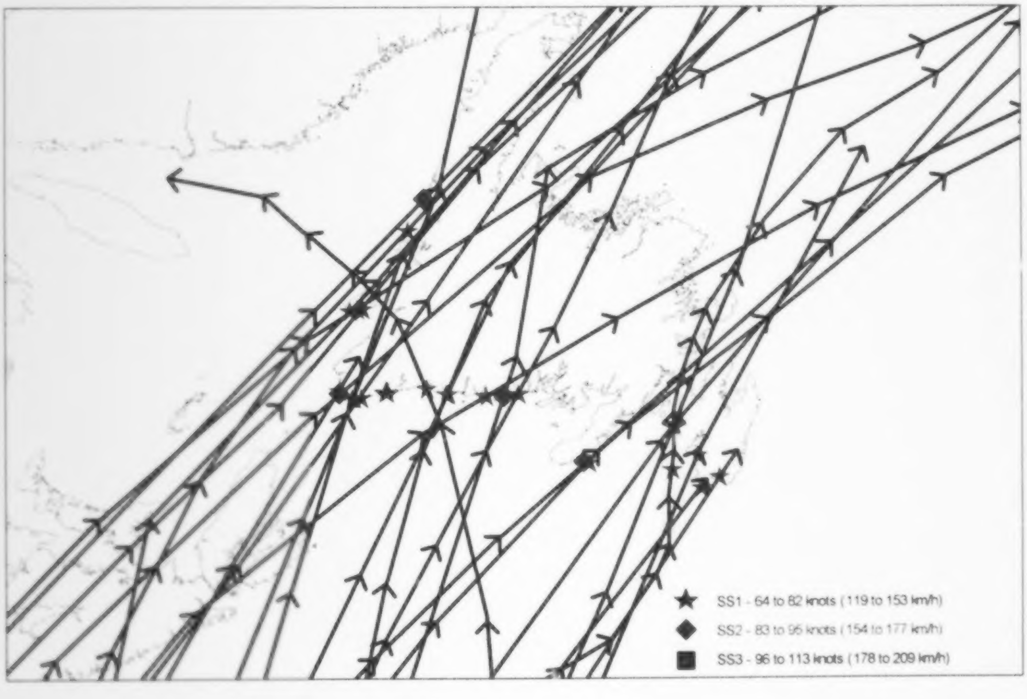

★ SS1 - 64 to 82 knots (119 to 153 km/h)
◆ SS2 - 83 to 95 knots (154 to 177 km/h)
■ SS3 - 96 to 113 knots (178 to 209 km/h)
Gerda #7
Sep 10 1969 10:30 UTC
SS1 70 kts / 130 km/h

Labrador Storm Details

Name	Date	Landfall UTC	#	Lat	Long	Max Wind (kts)	SS Scale	V (kts)	P (mb)	C
Gerda	Sep 10, 1969	10:30	7	51.84	-65.26	70	SS1	45.5		E

Newfoundland Landfalling Hurricanes (Island Only)


★ SS1 - 64 to 82 knots (119 to 153 km/h)
◆ SS2 - 83 to 95 knots (154 to 177 km/h)
Not Named #1
Aug 25, 1927 08:30 UTC
SS2 90 kts / 167 km/h
Not Named #5
Oct 15, 1866 21:30 UTC
SS1 65 kts / 120 km/h
Not Named #2
Aug 27, 1924 13:30 UTC
SS1 75 kts / 139 km/h
Not Named #9
Oct 15, 1891 14:30 UTC
SS1 70 kts / 130 km/h
Not Named #7
Sep 26, 1937 23:30 UTC
SS1 70 kts / 130 km/h
Not Named #2
Aug 8, 1926 17:00 UTC
SS1 65 kts / 120 km/h
Not Named #3 (See Note)
Aug 22, 1893 12:30 UTC
SS2 90 kts / 167 km/h
Evelyn #5
Oct 15, 1977 18:30 UTC
SS1 70 kts / 130 km/h
Celia #3
Jul 21, 1986 20:00 UTC
SS1 65 kts / 120 km/h
Not Named #4
Sep 8, 1891 10:00 UTC
SS1 75 kts / 139 km/h
Not Named #2
Oct 2, 1923 14:30 UTC
SS1 70 kts / 130 km/h
Helene #8
Sep 29, 1958 15:30 UTC
SS1 65 kts / 120 km/h
Not Named #6
Oct 6, 1891 14:00 UTC
SS1 80 kts / 148 km/h
Michael #13
Oct 19, 2000 23:30 UTC
SS2 85 kts / 158 km/h
Not Named #5
Sep 23, 1866 21:00 UTC
SS1 70 kts / 130 km/h
Not Named #4
Sep 10, 1949 09:30 UTC
SS1 65 kts / 120 km/h
Luis #12
Sep 11, 1995 06:30 UTC
SS1 80 kts / 148 km/h
Not Named #1
Aug 25, 1935 14:00 UTC
SS1 65 kts / 120 km/h
Gustav #7
Sep 12, 2002 09:15 UTC
SS1 75 kts / 139 km/h
Not Named #5
Aug 18, 1893 03:30 UTC
SS2 85 kts / 158 km/h
Not Named #2
Aug 22, 1892 11:30 UTC
SS1 70 kts / 130 km/h
Not Named #2
Aug 26, 1873 10:00 UTC
SS1 80 kts / 148 km/h
Not Named #4
Oct 18, 1939 05:30 UTC
SS1 80 kts / 148 km/h
Not Named #9
Oct 17, 1970 23:30 UTC
SS1 70 kts / 130 km/h
Not Named #5
Aug 27, 1887 05:50 UTC
SS1 70 kts / 130 km/h

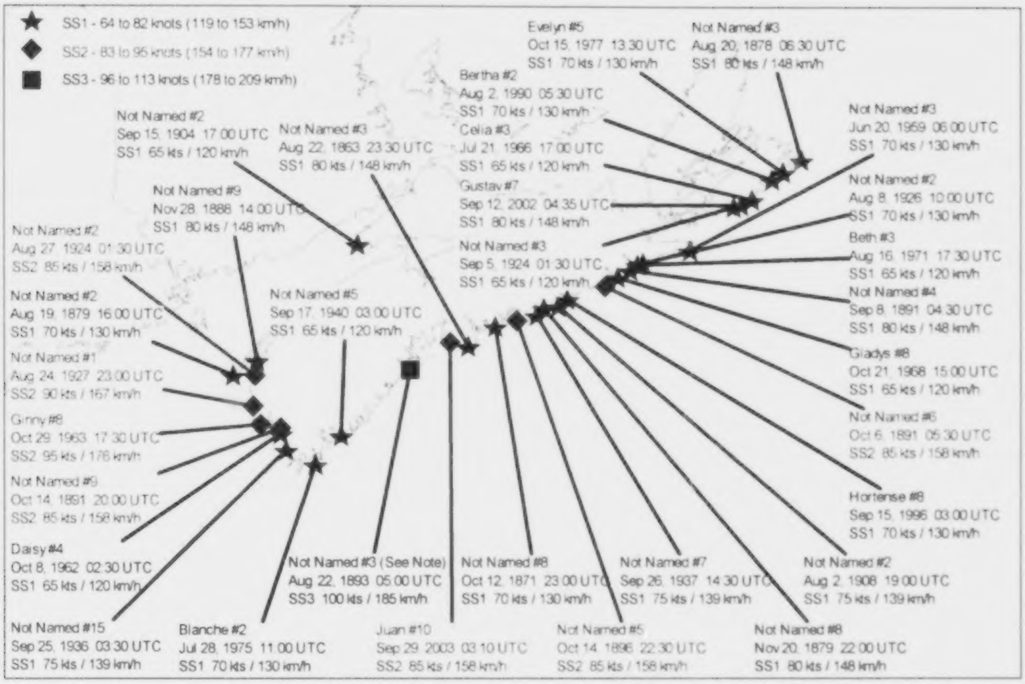

★ SS1 - 64 to 82 knots (119 to 153 km/h)
◆ SS2 - 83 to 95 knots (154 to 177 km/h)
■ SS3 - 96 to 113 knots (178 to 209 km/h)

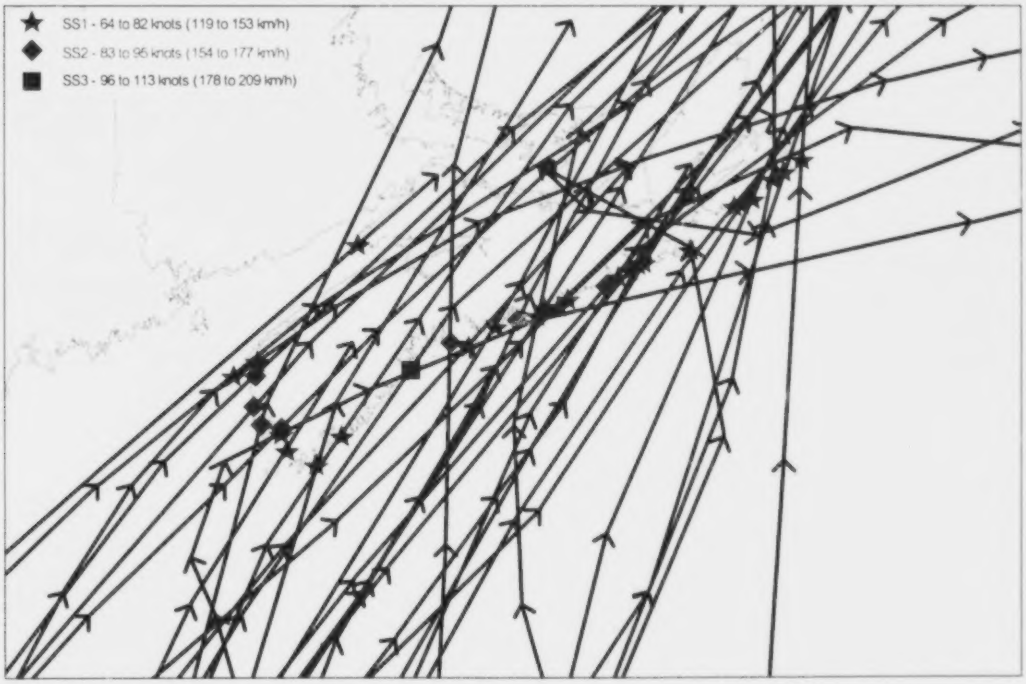
Note: Note: The SS2 storm near Port-aux-Basques has been downgraded on the latest release of the U.S. "Best Tracks" (HURDAT) database (Spring, 2004). The new intensity is set at 50 knots (TS).

Newfoundland Storm Details

Name	Date	Landfall UTC	#	Lat	Long	Max Wind (kts)	SS Scale	V (kts)	P (mb)	C
Not Named	Sep 23, 1866	21:00	5	47.61	-56.48	70	SS1	15.0		*
Not Named	Aug 26, 1873	10:00	2	46.82	-54.04	80	SS1	5.1		*
Not Named	Aug 27, 1887	05:50	5	46.63	-53.58	70	SS1	25.7		*
Not Named	Sep 08, 1891	10:00	4	47.59	-58.99	75	SS1	34.7		*
Not Named	Oct 06, 1891	14:00	6	47.59	-56.99	80	SS1	24.0		*
Not Named	Oct 15, 1891	14:30	9	48.51	-58.95	70	SS1	32.3		*
Not Named	Aug 22, 1892	11:30	2	46.88	-55.37	70	SS1	25.5		*
[**]**Not Named**	**Aug 22, 1893**	**12:30**	**3**	**47.62**	**-59.31**	**90**	**SS2**	**38.4**		*
Not Named	Aug 18, 1893	03:30	5	46.88	-55.43	85	SS2	18.8		*
Not Named	Oct 15, 1896	21:30	5	49.34	-58.23	65	SS1	28.8		*
Not Named	Oct 02, 1923	14:30	2	47.62	-57.61	70	SS1	17.4		E
Not Named	Aug 27, 1924	13:30	2	48.52	-59.04	75	SS1	29.6		E
Not Named	Aug 08, 1926	17:00	2	47.66	-59.31	65	SS1	25.9		E
Not Named	Aug 25, 1927	08:30	1	49.67	-57.96	90	SS2	45.6		E
Not Named	Aug 25, 1935	14:00	1	47.67	-57.94	65	SS1	12.0		E
Not Named	Sep 26, 1937	23:30	7	48.50	-59.14	70	SS1	34.9		E
Not Named	Oct 18, 1939	05:30	4	46.96	-53.63	80	SS1	34.0		*
Not Named	Sep 10, 1949	09:30	4	47.29	-54.00	65	SS1	36.9		E
Helene	Sep 29, 1958	15:30	8	47.62	-57.60	65	SS1	36.8	966	*
Celia	Jul 21, 1966	20:00	3	47.58	-59.09	65	SS1	38.0		E
Not Named	Oct 17, 1970	23:30	9	46.73	-53.27	70	SS1	55.2	980	*
Evelyn	Oct 15, 1977	18:30	5	47.57	-59.11	70	SS1	18.0	999	*
Luis	Sep 11, 1995	06:30	12	47.26	-53.99	80	SS1	57.6	963	*
Michael	Oct 19, 2000	23:30	13	47.57	-56.71	85	SS2	42.4	965	*
Gustav	Sep 12, 2002	09:15	7	47.65	-58.56	75	SS1	24.6	960	*

Nova Scotia Landfalling Hurricanes


★ SS1 - 64 to 82 knots (119 to 153 km/h)
◆ SS2 - 83 to 95 knots (154 to 177 km/h)
■ SS3 - 96 to 113 knots (178 to 209 km/h)
Evelyn #5 Oct 15, 1977 13:30 UTC SS1 70 kts / 130 km/h
Not Named #3 Aug 20, 1878 06:30 UTC SS1 80 kts / 148 km/h
Bertha #2 Aug 2, 1990 05:30 UTC SS1 70 kts / 130 km/h
Celia #3 Jul 21, 1966 17:00 UTC SS1 65 kts / 120 km/h
Gustav #7 Sep 12, 2002 04:35 UTC SS1 80 kts / 148 km/h
Not Named #3 Sep 5, 1924 01:30 UTC SS1 65 kts / 120 km/h
Not Named #3 Jun 20, 1959 06:00 UTC SS1 70 kts / 130 km/h
Not Named #2 Aug 8, 1926 10:00 UTC SS1 70 kts / 130 km/h
Beth #3 Aug 16, 1971 17:30 UTC SS1 65 kts / 120 km/h
Not Named #4 Sep 8, 1891 04:30 UTC SS1 80 kts / 148 km/h
Gladys #8 Oct 21, 1968 15:00 UTC SS1 65 kts / 120 km/h
Not Named #6 Oct 6, 1891 05:30 UTC SS2 85 kts / 158 km/h
Hortense #8 Sep 15, 1996 03:00 UTC SS1 70 kts / 130 km/h
Not Named #2 Sep 15, 1904 17:00 UTC SS1 65 kts / 120 km/h
Not Named #3 Aug 22, 1863 23:30 UTC SS1 80 kts / 148 km/h
Not Named #9 Nov 28, 1888 14:00 UTC SS1 80 kts / 148 km/h
Not Named #2 Aug 27, 1924 01:30 UTC SS2 85 kts / 158 km/h
Not Named #2 Aug 19, 1879 16:00 UTC SS1 70 kts / 130 km/h
Not Named #5 Sep 17, 1940 03:00 UTC SS1 65 kts / 120 km/h
Not Named #1 Aug 24, 1927 23:00 UTC SS2 90 kts / 167 km/h
Ginny #8 Oct 29, 1963 17:30 UTC SS2 95 kts / 176 km/h
Not Named #9 Oct 14, 1891 20:00 UTC SS2 85 kts / 158 km/h
Daisy #4 Oct 8, 1962 02:30 UTC SS1 65 kts / 120 km/h
Not Named #15 Sep 25, 1936 03:30 UTC SS1 75 kts / 139 km/h
Blanche #2 Jul 28, 1975 11:00 UTC SS1 70 kts / 130 km/h
Not Named #3 (See Note) Aug 22, 1893 05:00 UTC SS3 100 kts / 185 km/h
Juan #10 Sep 29, 2003 03:10 UTC SS2 85 kts / 158 km/h
Not Named #8 Oct 12, 1871 23:00 UTC SS1 70 kts / 130 km/h
Not Named #5 Oct 14, 1896 22:30 UTC SS2 85 kts / 158 km/h
Not Named #7 Sep 26, 1937 14:30 UTC SS1 75 kts / 139 km/h
Not Named #8 Nov 20, 1879 22:00 UTC SS1 80 kts / 148 km/h
Not Named #2 Aug 2, 1908 19:00 UTC SS1 75 kts / 139 km/h

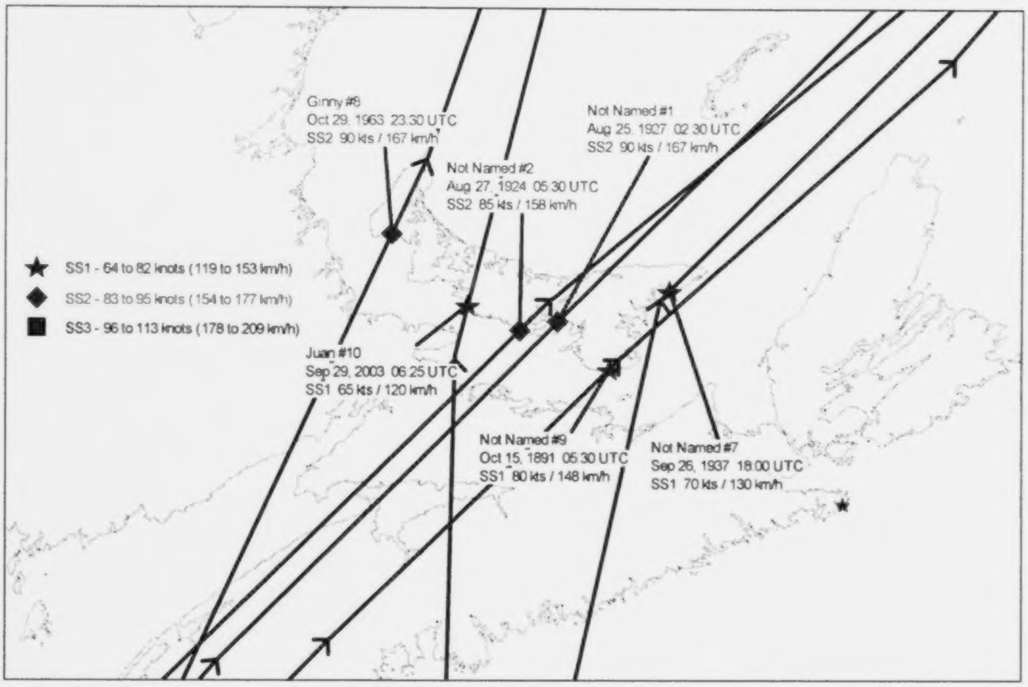

★ SS1 - 64 to 82 knots (119 to 153 km/h)
◆ SS2 - 83 to 95 knots (154 to 177 km/h)
■ SS3 - 96 to 113 knots (178 to 209 km/h)

Note: The SS3 storm near Mahone Bay has been downgraded on the latest release of the U.S. "Best Tracks" (HURDAT) database (Spring, 2004). The new intensity is set at 70 knots (SS1).

Nova Scotia Storm Details

Name	Date	Landfall UTC	#	Lat	Long	Max Wind (kts)	SS Scale	V (kts)	P (mb)	C
Not Named	Aug 22, 1863	23:30	3	44.47	-63.64	80	SS1	23.3		*
Not Named	Oct 12, 1871	23:00	8	44.64	-63.31	70	SS1	41.3		*
Not Named	Aug 20, 1878	06:30	3	46.03	-59.68	80	SS1	22.1	963	*
Not Named	Aug 19, 1879	16:00	2	44.23	-66.39	70	SS1	24.0		*
Not Named	Nov 20, 1879	22:00	8	44.79	-62.72	80	SS1	39.4	968	*
Not Named	Nov 28, 1888	14:00	9	44.35	-66.10	80	SS1	12.2		*
Not Named	Sep 08, 1891	04:30	4	45.10	-61.71	80	SS1	41.6		*
Not Named	Oct 06, 1891	05:30	6	44.97	-62.00	85	SS2	37.2		*
Not Named	Oct 14, 1891	20:00	9	43.77	-65.84	85	SS2	18.4		*
** **Not Named**	**Aug 22, 1893**	**05:00**	**3**	**44.27**	**-64.31**	**100**	**SS3**	**31.7**		*
Not Named	Oct 14, 1896	22:30	5	44.68	-63.05	85	SS2	10.0		*
Not Named	Sep 15, 1904	17:00	2	45.32	-64.93	65	SS1	59.8		E
Not Named	Aug 02, 1908	19:00	2	44.80	-62.57	75	SS1	26.8		E
Not Named	Aug 27, 1924	01:30	2	44.22	-66.14	85	SS2	40.4		E
Not Named	Sep 05, 1924	01:30	3	45.64	-60.48	65	SS1	26.8		E
Not Named	Aug 08, 1926	10:00	2	45.17	-61.55	70	SS1	25.8		E
Not Named	Aug 24, 1927	23:00	1	43.96	-66.16	90	SS2	49.7		E
Not Named	Sep 25, 1936	03:30	15	43.60	-65.77	75	SS1	26.0		E
Not Named	Sep 26, 1937	14:30	7	44.72	-62.80	75	SS1	25.6		E
Not Named	Sep 17, 1940	03:00	5	43.72	-65.13	65	SS1	23.0		*
Not Named	Jun 20, 1959	06:00	3	45.28	-61.00	70	SS1	16.3		E
Daisy	Oct 08, 1962	02:30	4	43.73	-65.84	65	SS1	13.7		*
Ginny	Oct 29, 1963	17:30	8	43.81	-66.07	95	SS2	33.2	958	*
Celia	Jul 21, 1966	17:00	3	45.71	-60.27	65	SS1	37.2	998	*
Gladys	Oct 21, 1968	15:00	8	45.05	-61.86	65	SS1	25.0	975	E
Beth	Aug 16, 1971	17:30	3	45.15	-61.62	65	SS1	14.8	984	*
Blanche	Jul 28, 1975	11:00	2	43.48	-65.42	70	SS1	29.4	980	*
Evelyn	Oct 15, 1977	13:30	5	45.93	-59.90	70	SS1	20.0	998	*
Bertha	Aug 02, 1990	05:30	2	45.88	-60.03	70	SS1	18.4	973	*
Hortense	Sep 15, 1996	03:00	8	44.87	-62.45	70	SS1	17.5	970	*
Gustav	Sep 12, 2002	04:35	7	45.66	-60.39	80	SS1	40.9	962	*
Juan	Sep 29, 2003	03:10	10	44.50	-63.85	85	SS2	32	972	*

Prince Edward Island Landfalling Hurricanes

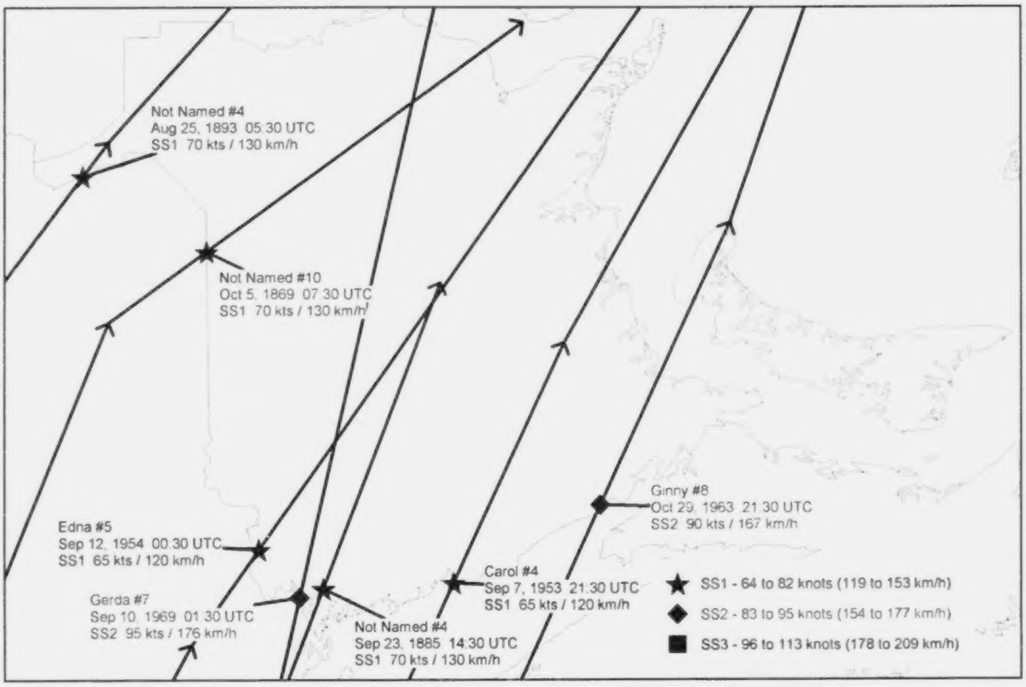

Ginny #8
Oct 29, 1963 23:30 UTC
SS2 90 kts / 167 km/h
Not Named #1
Aug 25, 1927 02:30 UTC
SS2 90 kts / 167 km/h
Not Named #2
Aug 27, 1924 05:30 UTC
SS2 85 kts / 158 km/h
★ SS1 - 64 to 82 knots (119 to 153 km/h)
◆ SS2 - 83 to 95 knots (154 to 177 km/h)
■ SS3 - 96 to 113 knots (178 to 209 km/h)
Juan #10
Sep 29, 2003 06:25 UTC
SS1 65 kts / 120 km/h
Not Named #9
Oct 15, 1891 05:30 UTC
SS1 80 kts / 148 km/h
Not Named #7
Sep 26, 1937 18:00 UTC
SS1 70 kts / 130 km/h

Prince Edward Island Storm Details

Prince Edward Island

Name	Date	Landfall UTC	#	Lat	Long	Max Wind (kts)	SS Scale	V (kts)	P (mb)	C
Not Named	Oct 15, 1891	05:30	9	45.95	-62.67	80	SS1	20.4		*
Not Named	Aug 27, 1924	05:30	2	46.15	-63.32	85	SS2	40.4		E
Not Named	Aug 25, 1927	02:30	1	46.19	-63.05	90	SS2	56.5		E
Not Named	Sep 26, 1937	18:00	7	46.34	-62.24	70	SS1	34.9		E
Ginny	Oct 29, 1963	23:30	8	46.63	-64.25	90	SS2	33.1		E
Juan	Sep 29, 2003	06:25	10	46.27	-63.70	65	SS1	39.2	982	*

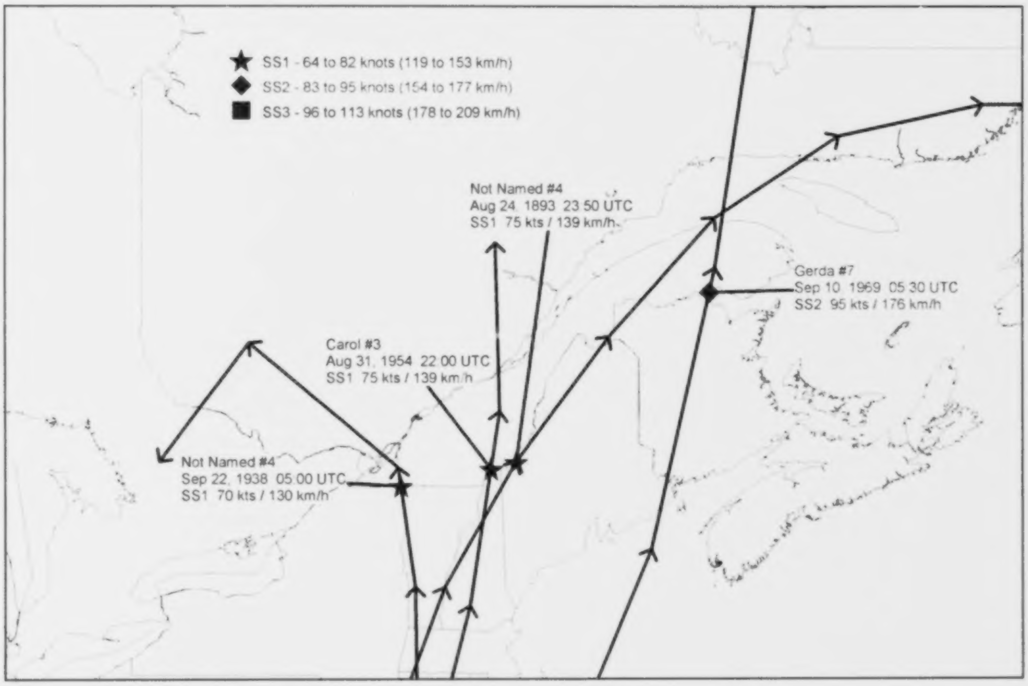
New Brunswick Hurricanes - *Provincial Crossing Points*


Not Named #4
Aug 25, 1893 05:30 UTC
SS1 70 kts / 130 km/h
Not Named #10
Oct 5, 1869 07:30 UTC
SS1 70 kts / 130 km/h
Ginny #8
Oct 29, 1963 21:30 UTC
SS2 90 kts / 167 km/h
Edna #5
Sep 12, 1954 00:30 UTC
SS1 65 kts / 120 km/h
Carol #4
Sep 7, 1953 21:30 UTC
SS1 65 kts / 120 km/h
Gerda #7
Sep 10, 1969 01:30 UTC
SS2 95 kts / 176 km/h
Not Named #4
Sep 23, 1885 14:30 UTC
SS1 70 kts / 130 km/h
★ SS1 - 64 to 82 knots (119 to 153 km/h)
◆ SS2 - 83 to 95 knots (154 to 177 km/h)
■ SS3 - 96 to 113 knots (178 to 209 km/h)

New Brunswick Storm Details

Name	Date	Landfall UTC	#	Lat	Long	Max Wind (kts)	SS Scale	V (kts)	P (mb)	C
Not Named	Oct 05, 1869	07:30	10	46.86	-67.79	70	SS1	25.3		*
Not Named	Sep 23, 1885	14:30	4	45.18	-66.95	70	SS1	26.9		E
Not Named	Aug 25, 1893	05:30	4	47.23	-68.69	70	SS1	25.1		*
Carol	Sep 07, 1953	21:30	4	45.21	-66.01	65	SS1	34.4		*
Edna	Sep 12, 1954	00:30	5	45.37	-67.42	65	SS1	48.9		E
Ginny	Oct 29, 1963	21:30	8	45.59	-64.94	90	SS2	33.1		E
Gerda	Sep 10, 1969	01:30	7	45.13	-67.12	95	SS2	46.2	979	*

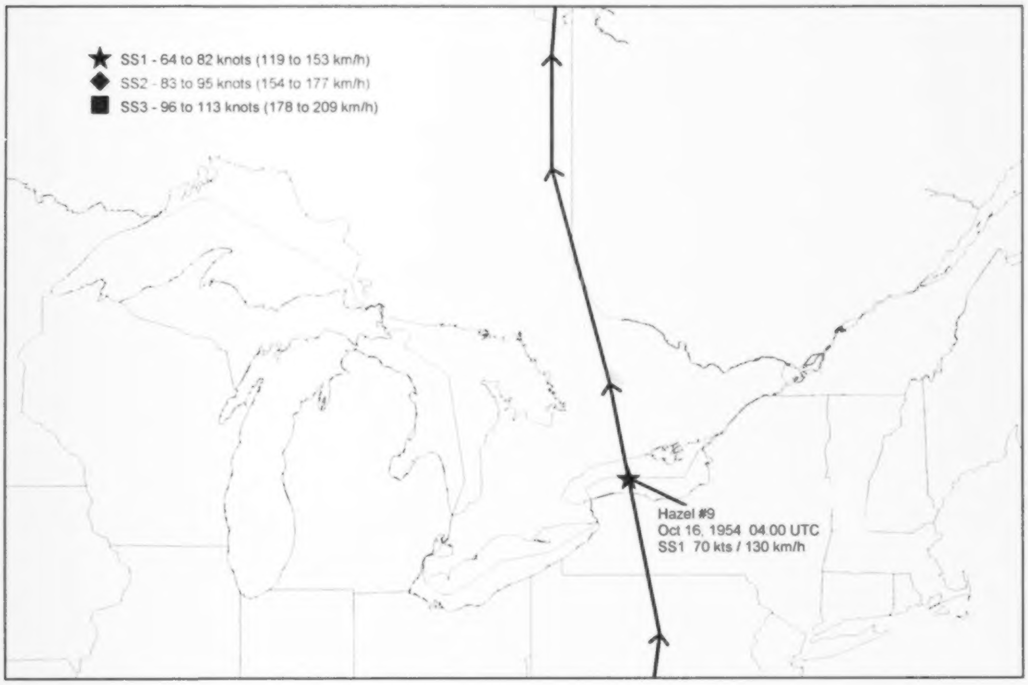
Quebec *'Landfalling'* Hurricanes - *Provincial Crossing Points*


★ SS1 - 64 to 82 knots (119 to 153 km/h)
◆ SS2 - 83 to 95 knots (154 to 177 km/h)
■ SS3 - 96 to 113 knots (178 to 209 km/h)
Not Named #4
Aug 24 1893 23 50 UTC
SS1 75 kts / 139 km/h
Gerda #7
Sep 10 1969 05 30 UTC
SS2 95 kts / 176 km/h
Carol #3
Aug 31, 1954 22 00 UTC
SS1 75 kts / 139 km/h
Not Named #4
Sep 22, 1938 05 00 UTC
SS1 70 kts / 130 km/h

Quebec Storm Details

Name	Date	Landfall UTC	#	Lat	Long	Max Wind (kts)	SS Scale	V (kts)	P (mb)	C
Not Named	Aug 24, 1893	23:50	4	45.39	-70.71	75	SS1	23.4		*
Not Named	Sep 22, 1938	05:00	4	45.01	-73.44	70	SS1	19.2	967	E
Carol	Aug 31, 1954	22:00	3	45.28	-71.31	75	SS1	31.4	976	E
Gerda	Sep 10, 1969	05:30	7	48.11	-66.13	95	SS2	46.2	979	*

Ontario *'Landfalling'* Hurricanes - *Provincial Crossing Points*


★ SS1 - 64 to 82 knots (119 to 153 km/h)
◆ SS2 - 83 to 95 knots (154 to 177 km/h)
■ SS3 - 96 to 113 knots (178 to 209 km/h)
Hazel #9
Oct 16, 1954 04:00 UTC
SS1 70 kts / 130 km/h

Ontario Storm Details

Name	Date	Landfall UTC	#	Lat	Long	Max Wind (kts)	SS Scale	V (kts)	P (mb)	C
Hazel	Oct 16, 1954	04:00	9	43.63	-78.15	70	SS1	42.9		E

EL NIÑO SOUTHERN OSCILLATION (ENSO)

An El Niño Southern Oscillation yearly status has been inserted into the Mapinfo© database. The values *El Niño*, *La Niña* and *Neutral* are linked to each storm track based on the year of the event. The ratings are those used by the Japan Meteorological Agency (JMA) (http://www.coaps.fsu.edu/~legler/jma_index.html). It is generally acknowledged that El Niño impedes hurricane development in the North Atlantic by increasing shear in the upper atmosphere (http://www.aoml.noaa.gov/hrd/Landsea/lanina/).

North Atlantic Basin - 1901 to 2000

1. The 'yearly storm count' table below indicates a total of 878 storms for the 100 year period 1901 to 2000 over the full Atlantic Basin (*Canadian Hurricane Centre Response Zone storms follow*). In fact, there are only 877 unique storms. Alice 1954 persisted through late December 1954 into January of 1955 and was counted in each year.
2. Both the El Niño and Neutral years contained a few yearly storm counts that seemed well outside the *'norm.'*
3. Overall results are as expected…
   * El Niño years average 2.4 fewer storms than neutral years
   * El Niño years average 3.6 fewer storms than La Niña years
   Note that considerable variability exists.

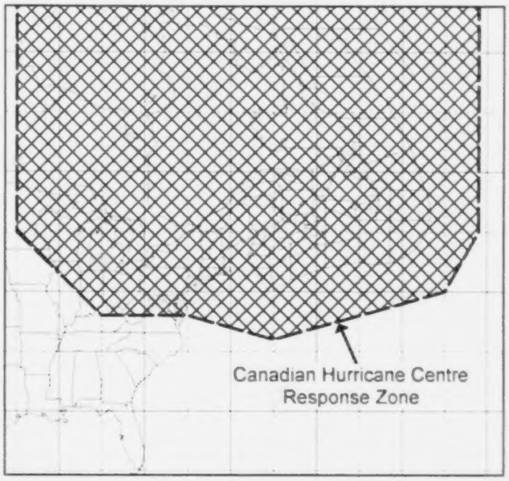
Yearly storm count by ENSO cycle - North Atlantic Basin 1901-2000

Year	El Niño	Year	La Niña	Year	Neutral
1925	2	1910	4	1914	1
1930	2	1922	4	1917	3
1929	3	1908	8	1919	3
1911	4	1924	8	1907	4
1913	4	1938	8	1920	4
1902	5	1956	8	1983	4
1904	5	1967	8	1915	5
1905	5	1973	8	1939	5
1918	5	1903	9	1962	5
1965	6	1975	9	1912	6
1982	6	1909	10	1921	6
1986	6	1942	10	1928	6
1972	7	1970	10	1935	6
1987	7	1906	11	1941	6
1940	8	1944	11	1946	6
1957	8	1954	11	1977	6
1991	8	1964	12	1923	7

Yearly storm count by ENSO cycle - North Atlantic Basin 1901-2000

Year	El Niño	Year	La Niña	Year	Neutral
1997	8	1988	12	1927	7
1963	9	1999	12	1952	7
1951	10	1949	13	1960	7
1976	10	1955	13	1992	7
1969	18	1971	13	1994	7
		1916	14	1968	8
		1998	14	1993	8
		2000	15	1931	9
				1937	9
				1947	9
				1948	9
				1979	9
				1901	10
				1943	10
				1958	10
				1926	11
				1932	11
				1934	11
				1945	11
				1959	11
				1961	11
				1966	11
				1974	11
				1980	11
				1985	11
				1989	11
				1978	12
				1981	12
				1950	13
				1984	13
				1996	13
				1953	14
				1990	14
				1936	16
				1995	19
				1933	21
El Niño		**La Niña**		**Neutral**	
Average	**6.6**	**Average**	**10.2**	**Average**	**9.0**
Standard Dev.	**3.4**	**Standard Dev.**	**2.9**	**Standard Dev.**	**3.9**
Average	**6.1**			**Average**	**8.42**
Standard Dev.	**2.4**			**Standard Dev.**	**3.2**
1969 Excluded				**1936,1995, and 1933 excluded)**	

Canadian Hurricane Centre Response Zone – 1901 to 2000



1. The table below shows a total of 351 storms moving into the *Canadian Hurricane Centre Response Zone* during the 100 year period 1901 to 2000.
2. The storm count for the 1969 El Niño event seems very high when compared to other years (as was the case for the full *Basin* count.)
3. El Niño years average 1 to 1.5 fewer storms per year than La Niña or Neutral years. Again, there is significant year-to-year variability.

Yearly storm count by ENSO cycle - Canadian Hurricane Centre Response Zone 1901-2000					
Year	**El Niño**	**Year**	**La Niña**	**Year**	**Neutral**
1902	1	1922	1	1907	1
1904	1	1906	2	1912	1
1905	1	1910	2	1983	1
1918	1	1938	2	1917	2
1925	1	1970	2	1921	2
1987	1	1903	3	1934	2
1929	2	1908	3	1939	2
1930	2	1956	3	1941	2
1976	2	1916	4	1945	2
1982	2	1924	4	1946	2
1940	3	1954	4	1947	2
1957	3	1967	4	1978	2
1965	3	1973	4	1992	2
1986	3	1975	4	1994	2
1991	3	1988	4	1928	3
1972	4	1998	4	1935	3
1951	5	1942	5	1977	3
1963	5	1944	5	1980	3
1997	5	1949	5	1993	3
1969	9	1971	5	1901	4
		1955	6	1926	4
		1964	6	1927	4
		1999	6	1936	4
		2000	8	1952	4

Yearly storm count by ENSO cycle - Canadian Hurricane Centre Response Zone 1901-2000

Year	El Niño	Year	La Niña	Year	Neutral
				1959	4
				1960	4
				1962	4
				1966	4
				1968	4
				1989	4
				1990	4
				1915	5
				1923	5
				1933	5
				1979	5
				1981	5
				1985	5
				1937	6
				1948	6
				1950	6
				1958	6
				1961	6
				1974	6
				1996	6
				1932	7
				1943	7
				1984	7
				1953	8
				1995	9
El Niño		**La Niña**		**Neutral**	
Average	**2.9**	**Average**	**4.0**	**Average**	**4.0**
Std Dev	**2.0**	**Std Dev**	**1.6**	**Std Dev**	**1.9**
Average	**2.5**				
Std Dev	**1.4**				
1969 Excluded					

REFERENCES

Galbraith, P. W. (1980): Hurricanes and Tropical Storms in Atlantic Canada – A Brief Review, Internal Report # MAES 6-80, Atmospheric Environment Service, Bedford, N.S., August 1980

Brandon, E.W. (1983): Atlantic Tropical Cyclone Tracks, Internal Report # MAES 2-83, Atmospheric Environment Service, Bedford, N.S., February 1983

Barks, E.A. Richards, W.G. (1986): The Climatology of Tropical Cyclones in Atlantic Canada, Internal Report # MAES 4-86, Atmospheric Environment Service, Bedford, N.S., April 1986

APPENDIX I - NHC BEST TRACKS EXAMPLE WITH MAPINFO© EQUIVALENT

National Hurricane Center 'Best Track' for Michael, 2000

```
59300 10/15/2000 M= 6 13 SNBR=1233 MICHAEL      XING=0
59305 10/15*0000000   0     0*0000000   0     0S3000712  30 1007S3000715  30 1006*
59310 10/16S2990718  35 1005S2990719  35 1005S2970717  35 1005S2980714  35 1004*
59315 10/17*2990711  35 1003*2980710  45 1000*2980709  55  995*3010709  65  988*
59320 10/18*3040709  65  988*3080708  65  986*3150704  65  984*3260695  70  979*
59325 10/19*3420678  75  983*3630655  65  986*3980616  75  979*4400585  85  965*
59330 10/20E4800565  75  966E5000560  70  966E5100535  65  968E5200505  60  970*
59335 HR
```

A pair of Mapinfo© import files are required. The 'MIF' file holds the geographic data (in this case, the line segments for each storm). The 'MID' file contains the tabular data (time, maximum wind speed, etc.). A Visual Basic application (NHC2MI.exe) was developed to perform the required conversion. Redundant fields were included in order to expedite some types of data queries although it is recognized that this would generally be considered poor database design (Yr, Mon, Dy, Date, etc.). Some fields were filled directly from the 'Best Track' file while others were filled after the database had been ported to Mapinfo©.

Mapinfo© Text Import 'MIF' File for Michael

```
Version 450
Charset "WindowsLatin1"
Delimiter ","
CoordSys Earth Projection 1, 33
Columns 21
  Name Char(12)
  Date Date
  Hour_UTC Smallint
  Longitude Float
  Latitude Float
  YearlyStormNumber Smallint
  DatabaseStormNumber Integer
  MaxWind_kts Smallint
  SaffirSimpson Char(3)
  SystemSpeed_kts Float
  Pressure_mb Smallint
  Comment Char(1)
  ENSO Char(10)
  LastPosition Logical
  RecordNumber Integer
  Yr Smallint
  Mon Smallint
  Dy Smallint
  JulianDy Smallint
  FiveYearPeriods Char(12)
  TenYearPeriods Char(12)
Data

Line -71.2 30 -71.5 30
```

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Line -71.5 30 -71.8 29.9
    Pen (2,4,32768)
Line -71.8 29.9 -71.9 29.9
    Pen (2,4,255)
Line -71.9 29.9 -71.7 29.7
    Pen (2,4,255)
Line -71.7 29.7 -71.4 29.8
    Pen (2,4,255)
Line -71.4 29.8 -71.1 29.9
    Pen (2,4,255)
Line -71.1 29.9 -71 29.8
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Line -71 29.8 -70.9 29.8
    Pen (2,2,255)
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    Pen (2,2,16711935)
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    Pen (2,2,16711935)
Line -70.8 30.8 -70.4 31.5
    Pen (2,2,16711935)
Line -70.4 31.5 -69.5 32.6
    Pen (2,2,16711935)
Line -69.5 32.6 -67.8 34.2
    Pen (2,2,16711935)
Line -67.8 34.2 -65.5 36.3
    Pen (2,2,16711935)
Line -65.5 36.3 -61.6 39.8
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Line -61.6 39.8 -58.5 44
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    Pen (2,2,0)
Line -56 50 -53.5 51
    Pen (2,2,0)
Line -53.5 51 -50.5 52
    Pen (2,2,0)
Point -50.5 52
    Symbol (31,0,12)
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Mapinfo© Text Import 'MID' File for Michael

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"Michael",20001016,0,-71.8,29.9,13,1233,35,"TS",0.9,1005,"S","La Nina",F,26007,2000,10,16,290,"1996-2000","1991-2000"
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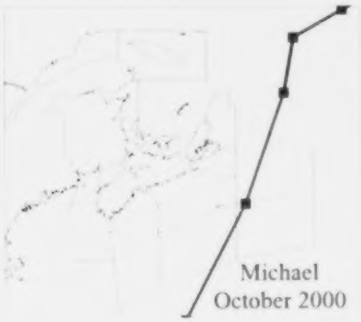
Final Track



APPENDIX II – THE CLIMATOLOGY OF TROPICAL CYCLONES IN ATLANTIC CANADA (BARKS AND RICHARDS)

AES - ASSD - 86 - 04

THE CLIMATOLOGY OF TROPICAL. CYCLONES
IN
ATLANTIC CANADA

E. A. Barks
W.G. Richards

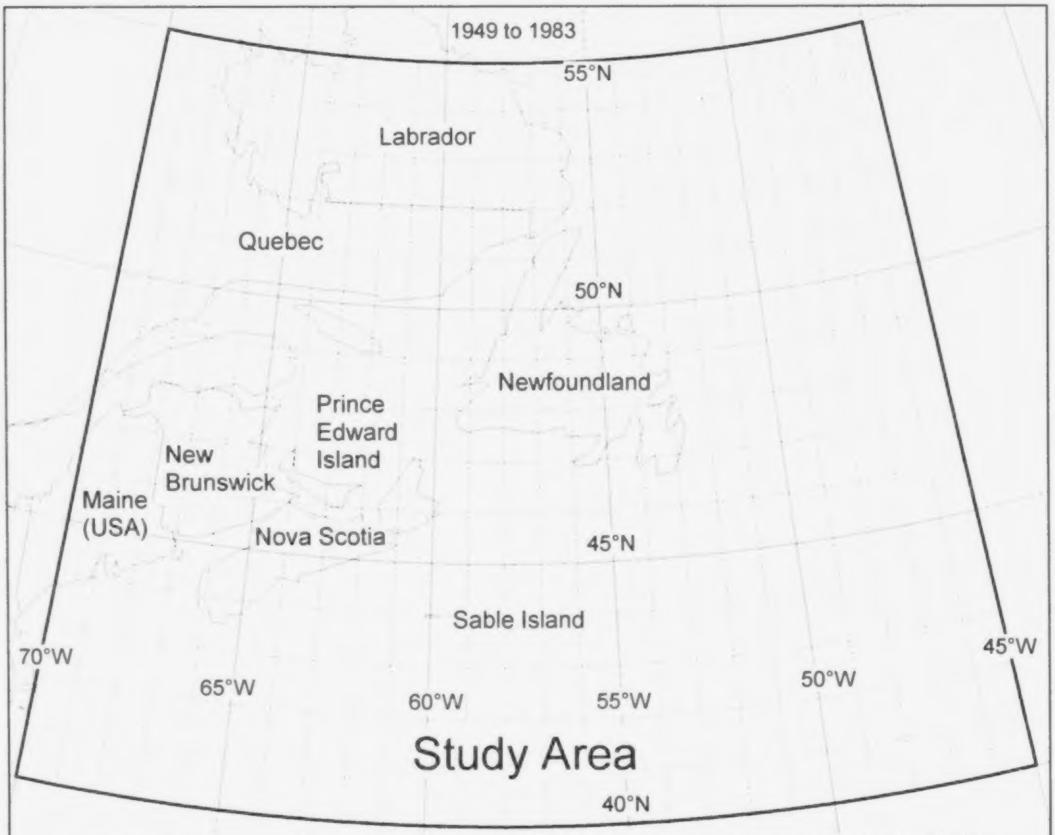
April, 1986

Atmospheric Environment Service
Atlantic Region
Scientific Services Division
Report # MAES 4-86

1. INTRODUCTION

1.1 Objective of Study

This study was undertaken to update and consolidate the results of a number of studies or projects related to the occurrence of tropical cyclones. that affect Atlantic Canada and coastal waters. The nature and evolution of tropical cyclones and their principal characteristics will be described briefly. A catalogue of tropical cyclone tracks for a thirty-five year period in a selected study area (see Figure 1) will serve as the basis for statistical analysis of the areal distribution of the incidence and strength of tropical cyclones.


1949 to 1983
55°N
Labrador
Quebec
50°N
Newfoundland
Prince Edward Island
New Brunswick
Maine (USA)
Nova Scotia
45°N
Sable Island
70°W
65°W
60°W
55°W
50°W
45°W
Study Area
40°N

The Climatology of Tropical Cyclones in Atlantic Canada - Barks and Richards 1986

Figure 1: Map of Eastern Canada and USA Showing Boundaries of Study Area

1.2 Definition of Tropical Cyclone

Any closed atmospheric circulation in the Northern hemisphere in which winds rotate in a counter-clockwise sense is called a cyclone. A tropical cyclone is defined as "a warm core, non-frontal low pressure system of synoptic scale developing over tropical or subtropical waters and having a definite organized circulation" (USDOC, 1985). Phenomena such as tornadoes and thunderstorms are excluded from the tropical storm classification because of their small scale.

1.3 Origin

Tropical cyclones have their origins over very warm ocean waters with temperatures typically around 27°C or warmer. Those that affect Atlantic Canada and coastal waters originate at tropical and subtropical latitudes of the North Atlantic Ocean, the Caribbean Sea and the Gulf of Mexico.

1.4 Description

Tropical cyclones vary. in diameter from about 50-100 km in their incipient stage to several hundred or a thousand km as mature hurricanes (Dunn and Miller, 1960). The cyclones usually grow in diameter and decrease in intensity as they leave the tropical environment and move over land or cooler waters.

Winds normally increase toward the centre of tropical cyclones with sustained speeds often exceeding 100 knots near the centre. Occasionally, sustained winds exceeding 150 knots, with still higher gusts, may occur in well-developed systems. The term "sustained wind" refers to the wind averaged over a one minute period. Apart from the wind, other destructive features of tropical cyclones include torrential rains, storm surges and embedded tornadoes, particularly at latitudes south of 40°N.

A unique feature of tropical cyclones is the central "eye". The eye is generally an area of light winds, minimum cloud cover and minimum sea level pressure (Neumann et al, 1978). The average diameter of the eye is about 22 km although diameters up to 40 km are not uncommon (Dunn and Miller, 1960). Near the eye winds do not converge to a single point but become tangent to the eye wall.

Tropical cyclones display a cloud structure quite different from the warm and cold frontal cloud patterns characteristic of mid-latitude cyclones. In tropical cyclones the thickest clouds are found in the nearly circular wall surrounding the eye and in spiral bands which radiate away from the centre of the storm. Often clear areas are visible between these spiral bands.

1.5 Classification

Tropical cyclones are classified on the basis of the maximum sustained wind speed in the storm. The terms "tropical depression", "tropical storm" or "hurricane" are assigned depending upon whether the maximum sustained winds are less than 34, 34 to 63 or greater than 63 knots, respectively (Neumann et al, 1978).

In recent years some tropical cyclones have been identified separately as "subtropical cyclones", based largely on their origin at more northerly latitudes. The same classification by wind speed applies.

1.6 Evolution, Transformation and Decay

Once the circulation of a tropical cyclone is well developed, the primary source of energy is the latent heat released in the bands of convective clouds spiralling around the centre of the storm. The relatively low frictional drag and warm water temperatures over the ocean are also important factors in the storm development.

As a tropical cyclone moves northward out of the influence of the tropical easterlies, it normally enters a stage of transformation from a warn core to a cold core system. This is referred to as the extratropical stage. An extratropical cyclone rapidly loses its source of latent heat energy as it moves over colder waters north of the Gulf Stream. If it moves inland it will encounter a large increase in frictional drag as well as losing the source of latent heat. This will cause a more rapid weakening of the cyclone. The rate of weakening of the circulation is a function of the size and hence the kinetic energy of the storm. A large storm can continue for some days over cool water and still maintain strong winds while a small cyclone will weaken more rapidly given essentially the same track and general flow pattern. The penetration of the strong circulation into northern latitudes will also depend on the speed of motion of the system (Galbraith, 1980).

Approximately 25 percent of the tropical cyclones affecting Atlantic Canada and coastal waters move east into the Atlantic ocean retaining some of their tropical characteristics. The remainder undergo a transition into storms with frontal or thermal structures similar to storms common to temperate latitudes (Galbraith, 1980).

2. GENERAL PATTERN OF MOVEMENT

Tropical cyclones show a tendency to follow preferred tracks depending on the time of year and location. There is a definite tendency for early season cyclones (June and July) to form in the general area of the Gulf of Mexico and the western Caribbean. These cyclones are less likely to reach Atlantic Canada than those that originate later in the year.

The typical tracks that affect Atlantic Canada begin on the south side of the Bermuda-Azores high pressure area in the broad region from Florida southeast to the Cape Verde Islands. Movement of the cyclones is first in a generally westerly to northwesterly direction under the influence of the tropical easterly winds. Seeds of motion at this stage are slow (in the order of10 knots) and erratic. Tropical cyclones moving northwest between Bermuda and the southeastern United States gradually come under the influence of the mid latitude westerly winds. They then curve northeastward and accelerate (Galbraith, 1980).

3. FREQUENCY OF OCCURRENCE

In their book Atlantic Hurricanes, Dunn and Miller (1960) summarized data from 1887-1958 on the frequency of tropical cyclones in the North Atlantic Ocean. Over the 72 years of data it was found that an average of 7.9 tropical cyclones, including 4.6 hurricanes, formed in the entire North Atlantic Ocean each year. Experience with satellite imagery in recent years suggests that the average figure of 7.9 tropical cyclones would be low since some of the smaller cyclones would not have been detected by the methods previously available.

Only a fraction (perhaps one-third) of these tropical cyclones pass near the marine or inland areas of the Maritime Provinces or Newfoundland. Thus, on average, about three tropical cyclones per year will affect (or threaten to affect) some part of the Atlantic Canada region. There have been years when the number of cyclones was considerably higher than this. For example, in 1969, eighteen tropical cyclones formed in the North Atlantic. Twelve reached hurricane strength and the rest reached tropical storm strength. A total of eight tropical cyclones entered the study area, five as hurricanes and three as tropical depressions (Figure 8).

Statistics indicate that the most significant cyclone months, particularly for Atlantic Canada, are August, September and October, with a pronounced peak in early September on average (Neumann: et al, 1978). The months from June through November normally span the complete season, although exceptions have occurred. For example, in February 1952 a tropical cyclone developed in the western Gulf of Mexico, crossed Florida near Miami on February 2, then passed over New Brunswick on February 5.

4. GENERAL CHARACTERISTICS OF TROPICAL CYCLONES

4.1 Wind

In the early and mature stages of a tropical cyclone the wind pattern around the cyclone is relatively symmetrical about the low pressure centre although the strongest surface winds will usually be slightly to the right of the storm track. The asymmetry in the wind pattern becomes more pronounced with acceleration of the storm. It has been noted that in storms that strike New England and the Maritimes, the northerly winds to the left of the storm track are light compared to the often very strong southerly winds to the right of the track. Also, any strong winds to the left of the track do not generally have as great an areal extent (Galbraith, 1980).

While winds to the left of the centre may be weakening, it is common for the area of gale force winds to expand to the right of the storm track during the decaying stage. In fact as a storm moves through its life cycle, there is a general tendency for the circulation of strong winds to expand to cover a larger area. This will be partially true in those cases where a hurricane is transformed into a large baroclinic mid-latitude storm. In those cases where the cyclone weakens rapidly, the expansion of the circulation will be minimal (Galbralth, 1980).

Once landfall has been made there will normally be a tendency for friction to reduce the surface wind speeds. The magnitude of the effect will, of course, be a function of topography. Experience in the United States suggests that hurricane winds will diminish to storm strength within three hours of landfall (Dunn and Miller, 1960). The winds at higher elevations will weaken more slowly. If the storm moves over water again the circulation at low levels can recover significantly. This effect can be important if, for example, a storm rapidly crosses the Maritimes and moves into the Gulf of St. Lawrence (Galbraith, 1980).

Winds are light in the eye of a tropical cyclone. In general the eye diameter is directly proportional to the storm maturity and storm diameter. If a storm is moving rapidly, as is often the case in the Atlantic Region, then the eye will tend to elongate in the direction of motion. Eyes have been reported as much as 140 km in length (Dunn and Miller, 1960). The eye generally becomes less distinguishable as the storm moves into northern latitudes although some remnants of it may persist for some time (Galbraith, 1980).

The winds in storms of tropical origin are characteristically gusty due to instability. Peak wind speeds can typically be 50% greater than the sustained winds. This characteristic will generally continue for some time into northern latitudes, particularly if the track of the storm gives rise to little modification of the air in low levels. In combination with topographic effects wind gusts can result in locally severe and damaging winds (Galbraith, 1980).

4.2 Rain

Heavy rainfall is a well known characteristic of tropical cyclones, with total rainfall amounts in mature hurricanes typically in the 75 to 250 mm range at more southern latitudes (DeAngelis, 1975). Maximum rainfall rates usually occur ahead of and to the right of the storm. The sector of heaviest rainfall tends to shift from the right front quadrant to the left front quadrant as the storm continues northward. The rainfall will likely be heaviest near a frontal system that is becoming involved in a storm. One factor which can reduce the extreme rainfall accumulations in the Maritimes and Newfoundland, compared to more southern locations, is the high speed at which many tropical cyclones move through the region. It is possible for tropical cyclones to produce extremely heavy rainfalls in the Atlantic Provinces on occasion. For example, in August 1971 hurricane Beth dumped 296.4 mm of rain at Halifax International Airport.

For a more complete description of tropical cyclones in Atlantic Canada and related forecasting problems the reader is encouraged to consult Galbraith (1980).

4.3 Wind and Rain Swaths

As mentioned above the areas of rain and strong winds tend to evolve as tropical storms mature. In order to determine typical radii of tropical storm rain and wind areas, 21 tropical cyclones which affected the Atlantic Provinces were analyzed. For each tropical cyclone the wind and rain swath was estimated from archived weather charts from the Maritimes Weather Centre. The "wind swath" was defined as the distance perpendicular to the storm track within which winds were gale force (i.e. 34 knots) or greater. The "rain swath" was defined as the distance perpendicular to the storm track within which rain fell. No specific threshold amount of rain was used because generally isohyetal analyses were not available. All swath estimates were made for the storms while they were in the vicinity of the Atlantic Provinces.

The abstracted data on wind and rain swaths are listed in Table 1. Occasionally it was not possible to estimate the swaths for various reasons. In some cases where the tropical storm was at sea the analysis was considered unreliable because of lack of data. In other cases the rain areas of tropical cyclones became linked to the rain areas of extra-tropical disturbances and the appropriate rain swath became impossible to distinguish. The average "rain swath" was determined to be 400 km while the average "wind swath" was 260 km.

TABLE 1: RAIN AND WIND SWATH DATA

Storm	Date	Rain Swath(km)	Wind Swath(km)
Frieda	Sept 27/57	460	330
"It"	June 20/58	310	280
Helene	Sept 29/58	440	400
Cindy	July 11/59	280	140
Frances	Oct 9/61	280	170
Daisy	Oct 7/62	610	330
Ella	Oct 22/62	550	----
Ginny	Oct 29/63	440	350
Ethel	Sept 14/64	440	240
Dora	Sept 15/64	440	280
Gladys	Sept 24/64	----	240
Celia	July 21/66	440	280
Gladys	Oct 21/68	500	420
Gerda	Sept 9-10/69	490	280

Storm	Date	Rain Swath(km)	Wind Swath(km)
Beth	Aug 15/71	390	200
Alice	July 6/73	240	220
Blanche	July 28/75	330	170
Faye	Sept 27/75	----	220
Belle	Aug 9-11/76	220	190
Evelyn	Oct 15/77	440	150
David	Sept.7/79	330	----

5. ANALYSIS OF TROPICAL CYCLONE TRACKS

5.1 Data Sources

The U.S. National Hurricane Center has compiled a database containing details of the location, central pressure and maximum wind speed of all known North Atlantic Tropical Cyclones since 1886 (Jarvinen and Caso, 1978). This data base (updated to the end of 1983) was acquired and used as the basis for analyzing the frequency of tropical cyclones in the Atlantic Canada study area (Figure 1) for the period 1949.to 1983.

5.2 Tracks of Tropical Cyclones

The tracks of tropical cyclones which passed through or near to the study area from 1949 to 1983 inclusive are shown in Figures 2 to 13. Tracks for three years are combined on each map except for the 1982-83 map. The date and time of first position are given for each cyclone. The connected dots indicate succeeding six-hourly positions of the centre of the tropical cyclones accompanied by the associated maximum wind speed (in knots). A cyclone track which terminates within the study area indicates that the disturbance either dissipated or lost the essential characteristics of a tropical cyclone. One hundred and twenty tropical cyclones (3.4 per year) are known to have entered the study area from 1949-83.

5.3 Frequency of Tropical Cyclone Tracks

Each of' the individual tropical cyclone tracks shown in Figures 2 to 13 were overlain on a map gridded at one degree latitude and longitude intervals. The number of tracks crossing any part of each grid box was counted. The total count for each gridbox is displayed in Figure 14. Tropical cyclones are more frequent over the ocean. For example, during the 35 year study period, 11 to 13 tropical cyclones passed about 100 to 140 km from the Nova Scotia coast, however only about 3 to 4 penetrated mainland Nova Scotia. More tropical cyclones crossed Cape Breton Island, the Cabot Strait and western

Newfoundland than over mainland Nova Scotia. Generally 3 to 4 tropical cyclones crossed any given area in New Brunswick and Prince Edward Island during the study period while fewer were observed over Quebec, Labrador and eastern Newfoundland.

A careful analysis of the numbers shown on Figure 14 reveals several preferred tracks for tropical cyclones. These preferred tracks, all oriented in a southwest to northeast direction, are shown in Figure 15.

5.4 Tropical Cyclone Tracks by Wind Category

The number of tropical cyclones crossing each grid area in Figure 14 was subdivided according to the maximum wind of the tropical cyclone which produced the event. Wind speeds were interpolated between the known six-hourly positions. The classification by wind speed (see Table 2) corresponds to the accepted definitions of gale, storm and hurricane force winds. The results of this analysis are shown in Figure 16.

TABLE 2: CLASSIFICATION OF TROPICAL CYCLONES BY MAXIMUM WIND SPEED

Class	Criterion
B	Maximum Wind Speed < 3.4 knots
G	Maximum Wind Speed ≥ 34 and < 48 knots
S	Maximum Wind Speed ≥ 48 and < 64 knots
H	Maximum Wind Speed ≥ 64 knots

5.5 Tropical Cyclone Proximity

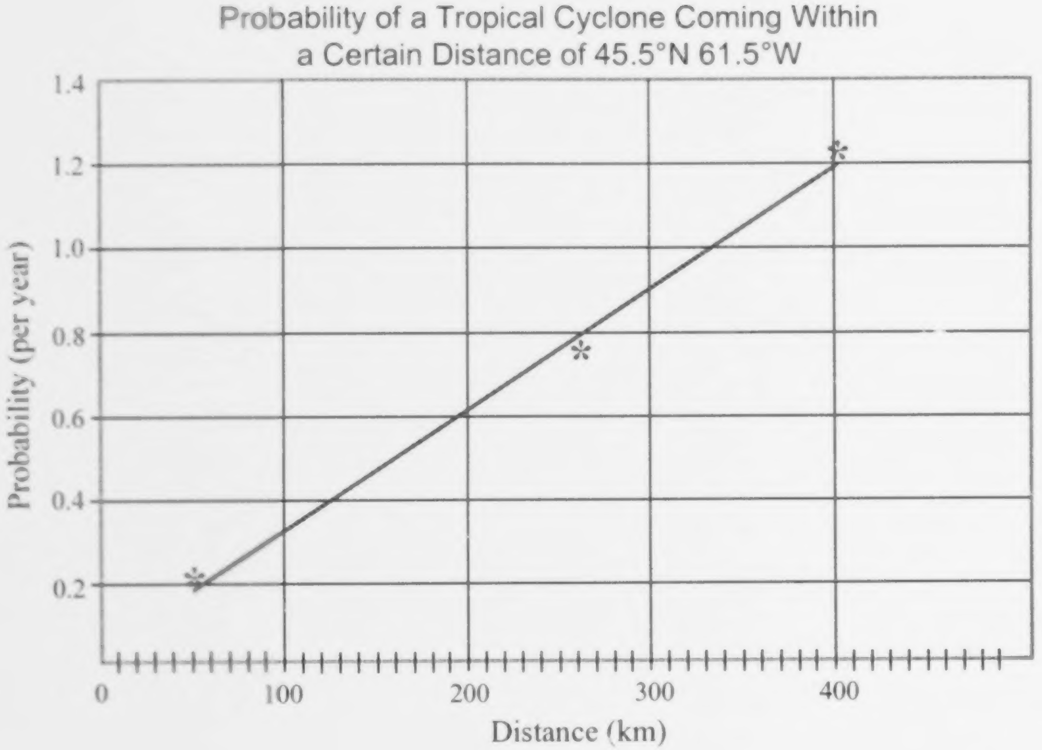
As discussed in section 4.3 the effects of tropical cyclones are often felt far from the centre of the storm. For some purposes one may want to know not only how often a tropical cyclone tracked over an area but how often a tropical cyclone came close to it. Figures 17 and 18 show, for each one degree area, the number of tropical cyclones that passed within 260 and 400 km of the centre point of each area during the 1949-83 period. For the immediate area of the Atlantic Provinces the data would represent the areal frequency of impact of the average "wind swath" (Figure 17) and the average "rain swath" (Figure 18) due to tropical cyclones, for the period under study.

Figures 17 and 18 reveal a pattern somewhat similar to the tropical cyclone track frequencies (Figure 14). The probability of impact of a tropical cyclone decreases from south to north across the study area. Nova Scotia, the south coast of Newfoundland and the Avalon Peninsula are within the so-called "wind swath" of a tropical cyclone on average approximately twice every three years. New Brunswick, Prince Edward Island, the Gaspé Peninsula and the remainder of Newfoundland would be affected, on average, by the "wind swath" of a tropical cyclone approximately once every two years.

Because the average "rain swath" is larger than the "wind swath", the frequency of impact of the "rain swath" at any given location is greater. Some areas of the Atlantic Ocean south of Sable Island come within the "rain swath" of a tropical cyclone on average twice per year. This frequency diminishes to approximately 1 to 1.5 times per year over Nova Scotia, southern New Brunswick and the south coast of Newfoundland and to about once every two years over the Gaspé Peninsula, eastern Quebec and Labrador.

The probability of impact of a tropical cyclone at any point within the study area can be determined for three distances, 50 km, 260 km and 400 km by dividing the numbers shown in figures 14, 17 and 18 by 35. The 50 km distance corresponds to one-half degree of latitude. The probability of impact of any swath width between these distances can be calculated by interpolation. For example, suppose one wanted to determine the probability of a tropical cyclone coming within 150 km of 45.5°N, 61.5°W (the Strait of Canso area). Using the data in Figures 14, 17, and 18 the graph below can be plotted. The curve fitted to the three data points permits interpolation between them. Thus the probability of a tropical cyclone coming within 150 km of 45.5°N, 61.5°W is approximately 0.43 per year.

For both the proximity maps (Figures 17 and 18) the counts along the southern boundary of the study area are known to be low due to the incompleteness of some of the track data between 36.4°N and 38.5°N for certain years.



Probability of a Tropical Cyclone Coming Within a Certain Distance of 45.5°N 61.5°W

6. SUMMARY

This study presents a convenient reference for tropical cyclones that have entered Atlantic Canada and coastal waters over a period of 35 years (1949-1983). Frequency data have been produced to identify the areas of higher incidence of tropical cyclones, with a further breakdown by wind speed to indicate cyclone severity. Maps were introduced to indicate the concept of probability of occurrence of a tropical cyclone within three selected distances (50, 260 and 400 km) of any point in the area.

7. ACKNOWLEDGEMENTS

The authors wish to acknowledge the groundwork done for this project by E.W. Brandon (1983) and B. Goldrup of the Atmospheric Environment Service in Bedford, Nova Scotia. This report was based on a contract report prepared by E. Barks (1985).

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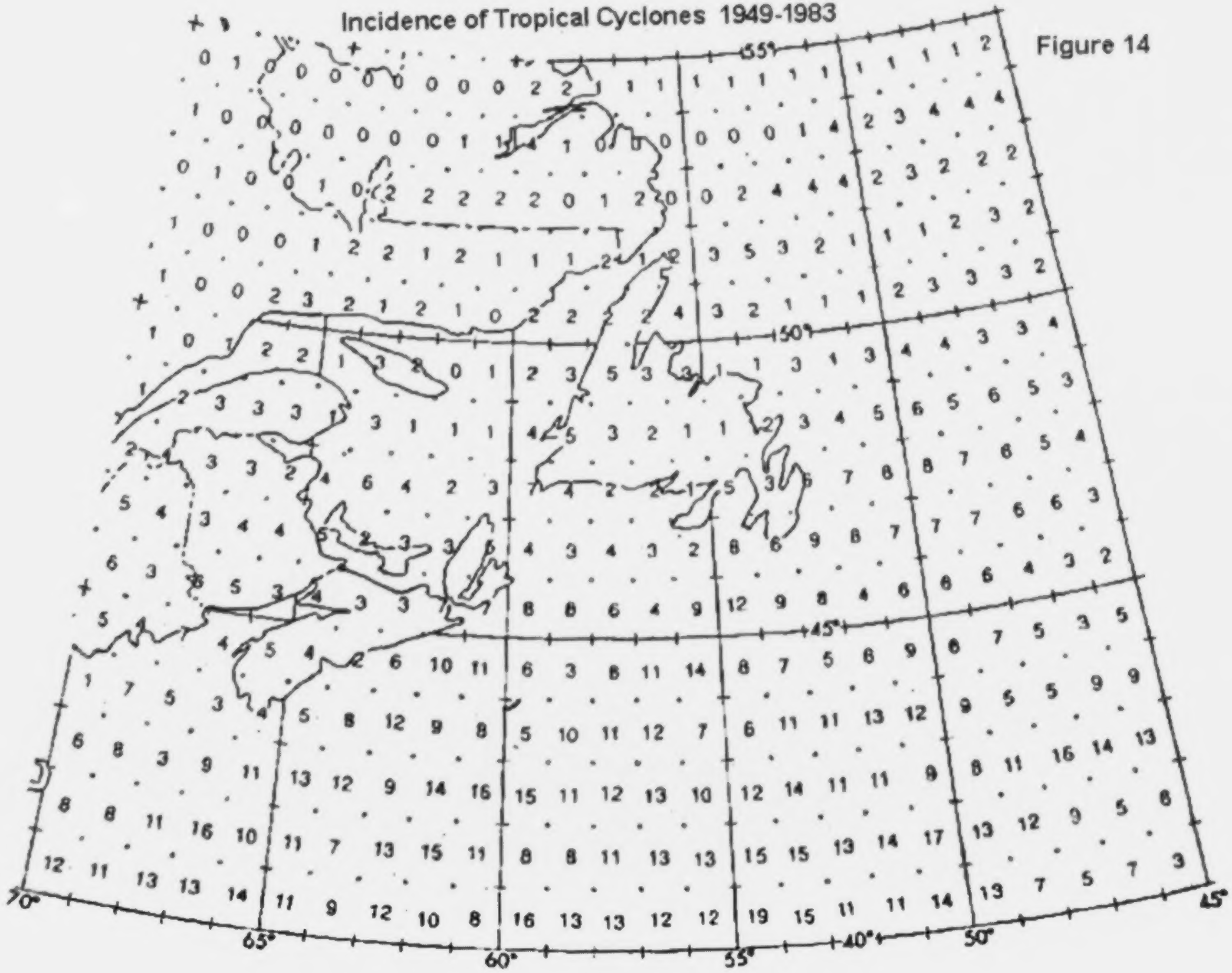
9. FIGURES

Figures 2 to 13
Note: tropical storm track maps (figures 2 to 13) have not been reproduced here.

Incidence of Tropical Cyclones 1949-1983

Figure 14



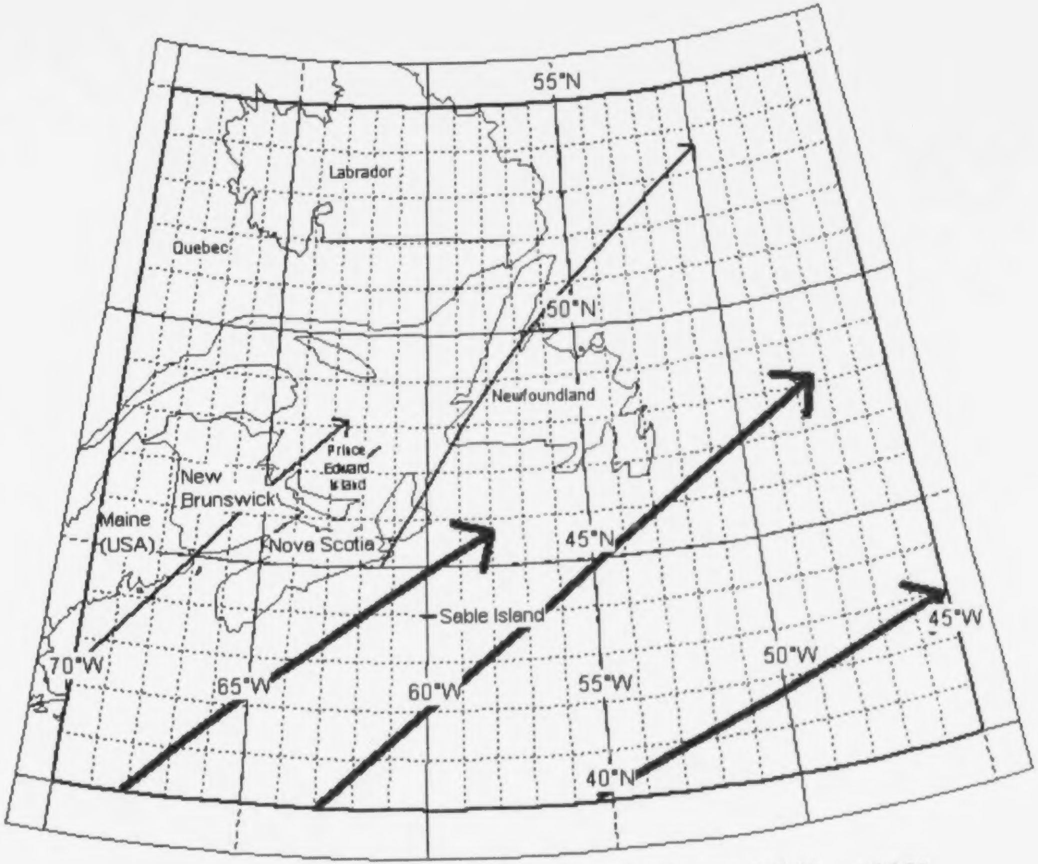

55°N
Labrador
Quebec
50°N
Newfoundland
New Brunswick
Prince Edward Island
Maine (USA)
Nova Scotia
45°N
Sable Island
45°W
70°W
65°W
60°W
55°W
50°W
40°N

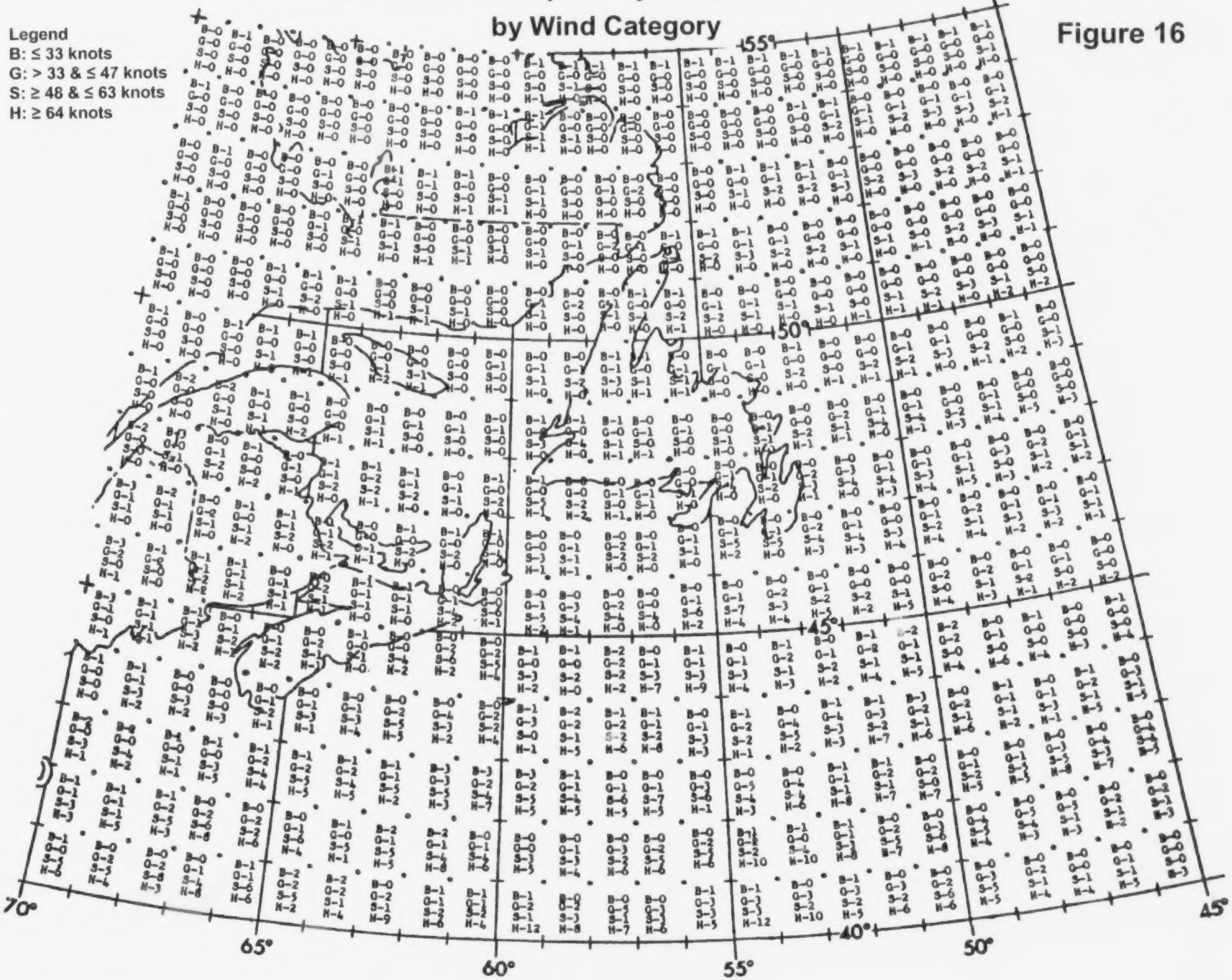
Figure 15: Preferred Tracks of Tropical Cyclones (1949 – 1983)

━━━━━━ Principal Tracks
────── Secondary Tracks

Incidence of Tropical Cyclones 1949-1983 by Wind Category

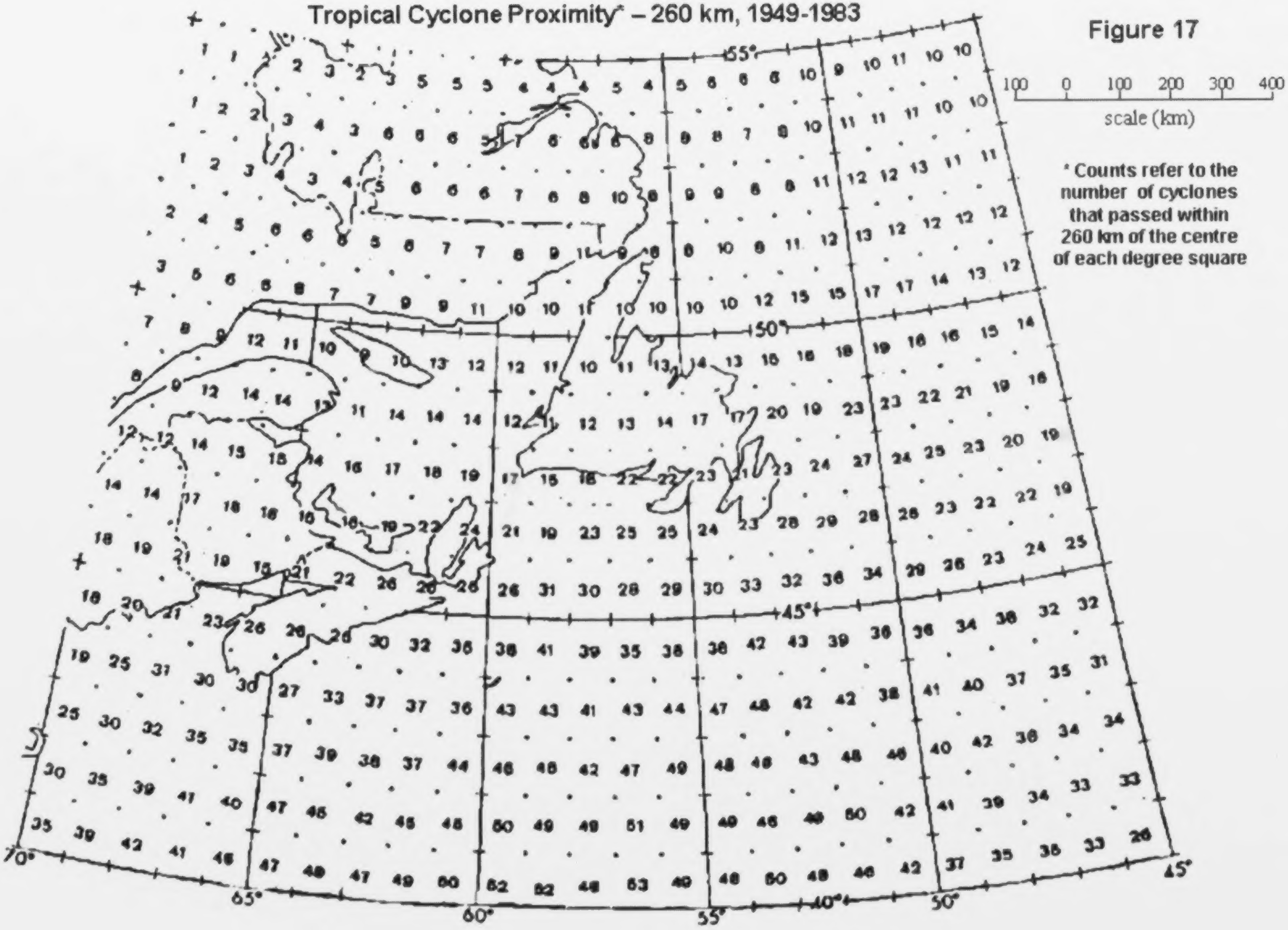
Figure 16

Legend
B: ≤ 33 knots
G: > 33 & ≤ 47 knots
S: ≥ 48 & ≤ 63 knots
H: ≥ 64 knots



Tropical Cyclone Proximity* – 260 km, 1949-1983

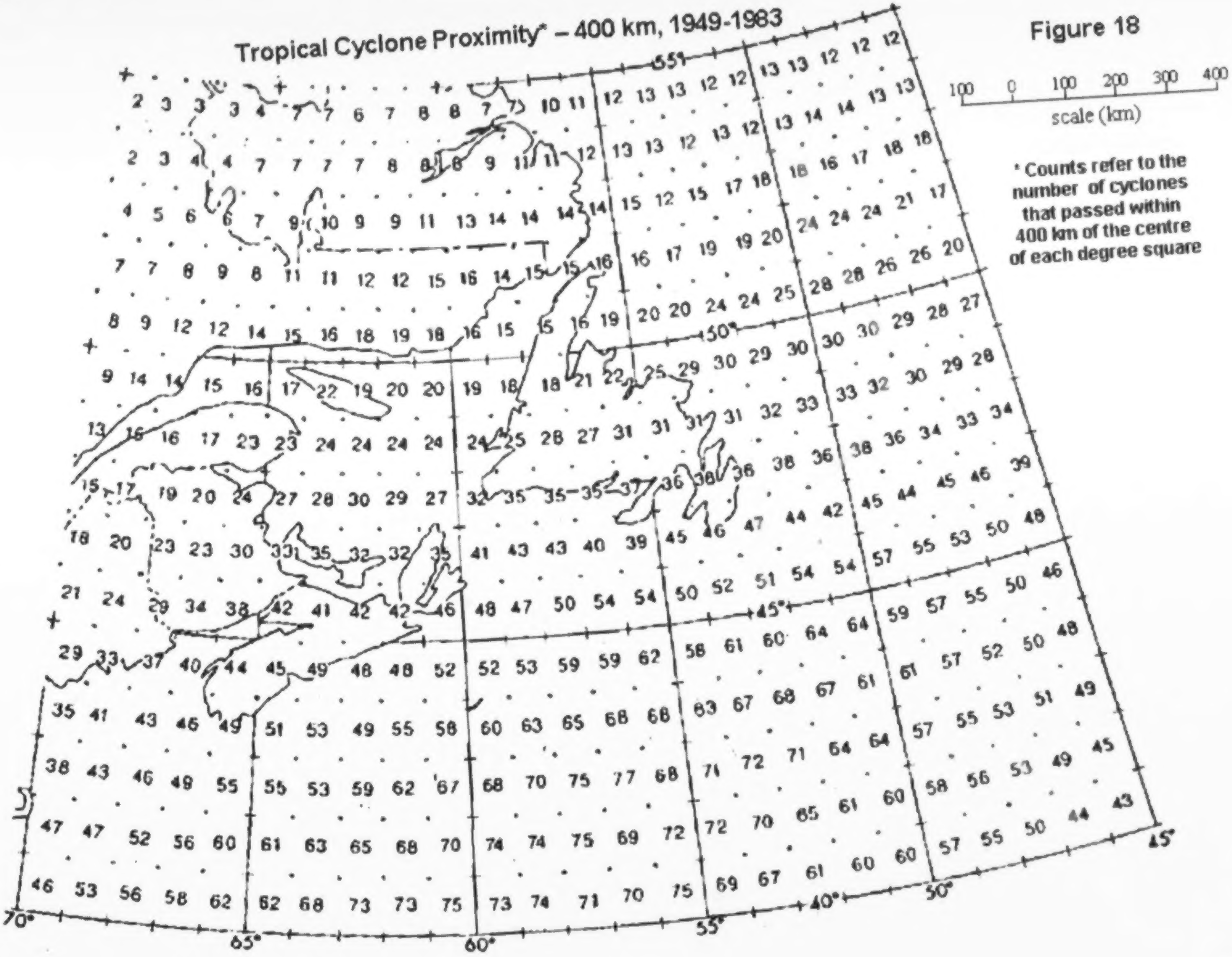
Figure 17


55°
50°
45°
70°
65°
60°
55°
40°
50°
45°
100 0 100 200 300 400
scale (km)

* Counts refer to the number of cyclones that passed within 260 km of the centre of each degree square

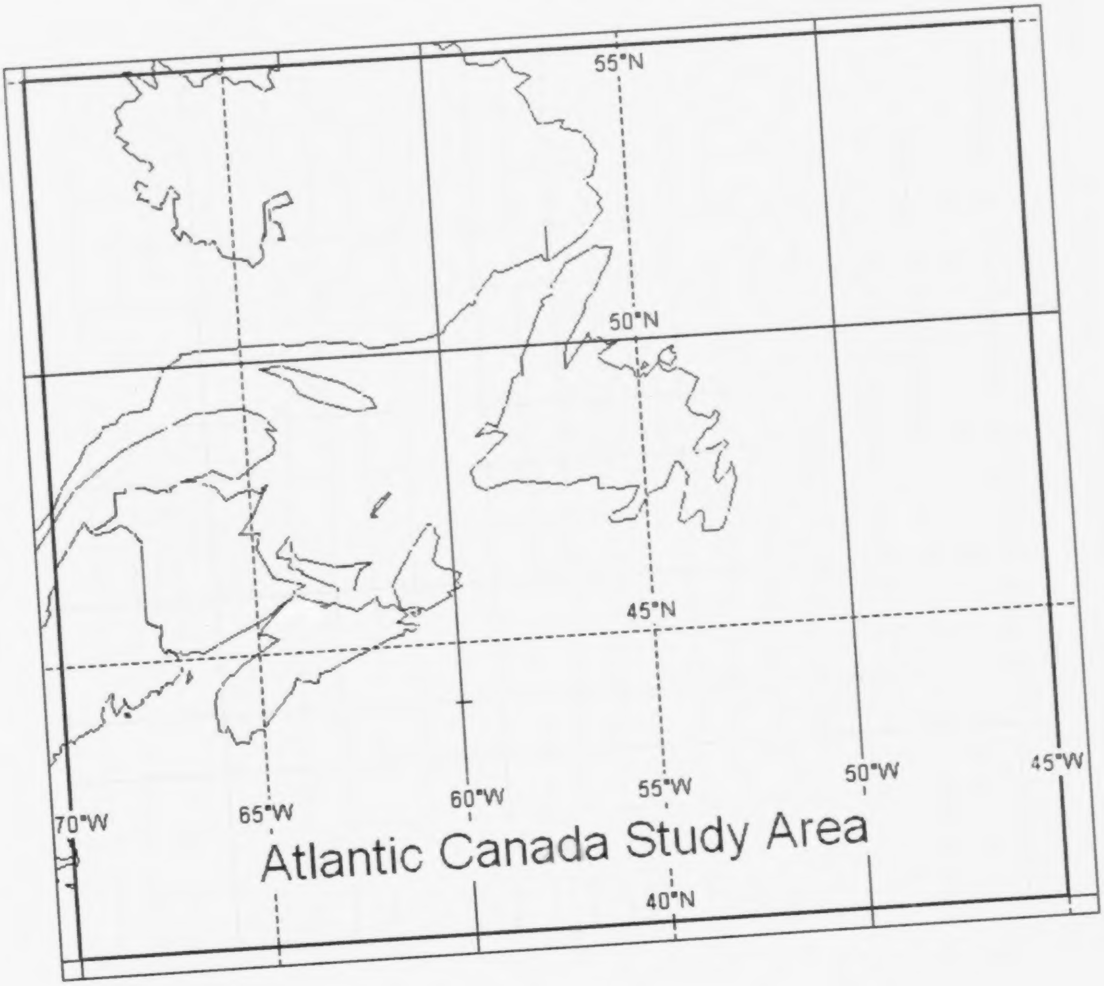
Figure 18

Tropical Cyclone Proximity* – 400 km, 1949-1983


2 3 3 3 4 7 7 6 7 8 8 7 7 10 11 12 13 13 12 12 13 13 12 12 12
2 3 4 4 7 7 7 7 8 8 8 9 11 11 12 13 13 12 13 12 13 14 14 13 13
4 5 6 6 7 9 10 9 9 11 13 14 14 14 14 15 12 15 17 18 18 16 17 18 18
7 7 8 9 8 11 11 12 12 15 16 14 15 15 16 16 17 19 19 20 24 24 24 21 17
8 9 12 12 14 15 16 18 19 18 16 15 15 16 19 20 20 24 24 25 28 28 26 26 20
9 14 14 15 16 17 22 19 20 20 19 18 18 21 22 25 29 30 29 30 30 30 29 28 27
13 16 16 17 23 23 24 24 24 24 24 25 28 27 31 31 31 31 32 33 33 32 30 29 28
15 17 19 20 24 27 28 30 29 27 32 35 35 35 37 36 38 36 38 36 38 36 34 33 34
18 20 23 23 30 33 35 32 32 35 41 43 43 40 39 45 46 47 44 42 45 44 45 46 39
21 24 29 34 38 42 41 42 42 46 48 47 50 54 54 50 52 51 54 54 57 55 53 50 48
29 33 37 40 44 45 49 48 48 52 52 53 59 59 62 58 61 60 64 64 59 57 55 50 46
35 41 43 46 49 51 53 49 55 58 60 63 65 68 68 63 67 68 67 61 61 57 52 50 48
38 43 46 49 55 55 53 59 62 67 68 70 75 77 68 71 72 71 64 64 57 55 53 51 49
47 47 52 56 60 61 63 65 68 70 74 74 75 69 72 72 70 65 61 60 58 56 53 49 45
46 53 56 58 62 62 68 73 73 75 73 74 71 70 75 69 67 61 60 60 57 55 50 44 43
55°
50°
45°
40°
70°
65°
60°
55°
50°
45°
100 0 100 200 300 400
scale (km)

*** Counts refer to the number of cyclones that passed within 400 km of the centre of each degree square**

APPENDIX III – ATLANTIC CANADA GRID CELL STATISTICS (TABULAR DATA)


55°N
50°N
45°N
40°N
70°W
65°W
60°W
55°W
50°W
45°W
Atlantic Canada Study Area

The following table lists all grid cell statistics for Atlantic Canada.

See Appendix IV for tabular data for the entire North Atlantic Basin.

Wind Speed Classification Ranges

Abbreviation	Definition	Winds (knots)	Winds (km/h)	Winds (mph)
TD	Tropical Depression	< 34	< 63	< 39
TS	Tropical Storm	34-63	63-118	39-73
G [1]	Gale [1]	34-47	63-87	39-54
S [2]	Storm [2]	48-63	88-118	55-73
SS1 (or S1)	Saffir-Simpson 1	64-82	119-153	74-95
SS2 (or S2)	Saffir-Simpson 2	83-95	154-177	96-110
SS3 (or S3)	Saffir-Simpson 3	96-113	178-209	111-130
SS4 (or S4)	Saffir-Simpson 4	114-135	210-251	131-155
SS5 (or S5)	Saffir-Simpson 5	>135	>251	>155
H	Hurricane Strength	≥64	≥117	≥74
<H	Less Than Hurricane	<64	<117	<74
ALL	Count of all tropical storms moving through the area, regardless of wind strength			
Avg Sys Spd (kts) [3] (or Spd) (or Sys-Spd)	The average system or translation speed of the storm in knots [3]			

1.0 knot = 1.1516 mph = 0.5148 m/s = 1.853 km/h

Notes:

[1] Gale: Canadian marine warning definition for mid-latitude storms

[2] Storm: Canadian marine warning definition for mid-latitude storms
Tropical Storm winds span the Canadian Gale and Storm range…
# Gales + # Storms = # Tropical Storms

[3] The average of the system translation speeds for all storms that crossed the area or grid cell. If a storm took more than 6 hours to transit the cell, then all of its 6 hour translation speeds were used in the average. The structure of the Mapinfo database is such that the last report for a given storm will be represented geographically by a zero length line or point and the resulting translation speed will be reduced to zero. Inclusion of these false speeds would yield inappropriate averages and they were excluded. Value is in knots.

Six sets of numbers are contained in the table

a. Statistics for the one degree latitude by one degree longitude grid cells from 40N to 55N, 70W to 45W

b. Statistics for the area encompassed by a 260 km circle centered on the cell centre (if cell is 40N to 41N, 70W to 69W, then cell centre is 40.5N 69.5W and circle extends to 260 km from this point.

c. Statistics for the area encompassed by a 400 km circle centered on the cell centre.

d. The storm frequencies described above are provided for two periods of time:
   100 year (1901 to 2000), and
   50 year (1951 to 2000)

040°N to 041°N

Cell or Centre Radius	TD	TS	G	S	S1	S2	S3	S4	S5	H	<H	All	Spd
040N-041N 070W-069W 100yr	3	13	4	9	6	4	2	0	0	12	16	28	19.8
40.5N 69.5W 260km 100yr	4	48	25	23	18	15	5	1	0	39	52	91	24.2
40.5N 69.5W 400km 100yr	12	67	36	31	31	21	11	2	0	65	79	144	23.4
040N-041N 070W-069W 50yr	2	8	1	7	3	1	2	0	0	6	10	16	17.9
40.5N 69.5W 260km 50yr	3	30	11	19	8	10	2	1	0	21	33	54	24.0
40.5N 69.5W 400km 50yr	9	42	16	26	16	13	5	2	0	36	51	87	23.5
040N-041N 069W-068W 100yr	0	20	10	10	6	2	1	0	0	9	20	29	21.9
40.5N 68.5W 260km 100yr	4	53	28	25	21	15	8	0	0	44	57	101	24.2
40.5N 68.5W 400km 100yr	12	72	35	37	35	26	9	3	0	73	84	157	23.6
040N-041N 069W-068W 50yr	0	13	6	7	3	0	1	0	0	4	13	17	21.5
40.5N 68.5W 260km 50yr	4	31	11	20	11	11	3	0	0	25	35	60	24.2
40.5N 68.5W 400km 50yr	9	47	17	30	18	15	4	3	0	40	56	96	23.5
040N-041N 068W-067W 100yr	0	24	12	12	7	3	0	0	0	10	24	34	23.7
40.5N 67.5W 260km 100yr	5	54	28	26	27	12	9	1	0	49	59	108	23.9
40.5N 67.5W 400km 100yr	11	71	34	37	38	25	10	3	0	76	82	158	23.7
040N-041N 068W-067W 50yr	0	17	6	11	2	1	0	0	0	3	17	20	23.9
40.5N 67.5W 260km 50yr	4	33	12	21	14	8	4	1	0	27	37	64	24.0
40.5N 67.5W 400km 50yr	8	47	17	30	22	15	4	3	0	44	55	99	23.8
040N-041N 067W-066W 100yr	0	16	8	8	10	2	0	0	0	12	16	28	26.0
40.5N 66.5W 260km 100yr	5	53	26	27	31	16	5	2	0	54	58	112	24.3
40.5N 66.5W 400km 100yr	9	73	35	38	41	24	12	2	0	79	82	161	23.8
040N-041N 067W-066W 50yr	0	11	4	7	8	1	0	0	0	9	11	20	26.6
40.5N 66.5W 260km 50yr	4	36	14	22	17	8	3	2	0	30	40	70	24.7
40.5N 66.5W 400km 50yr	7	46	16	30	24	14	6	2	0	46	53	99	23.9
040N-041N 066W-065W 100yr	1	18	9	9	11	2	2	0	0	15	19	34	26.3
40.5N 65.5W 260km 100yr	4	49	23	26	36	16	4	2	0	58	53	111	24.4
40.5N 65.5W 400km 100yr	9	75	35	40	44	28	10	3	0	85	84	169	24.0
040N-041N 066W-065W 50yr	1	12	4	8	7	1	1	0	0	9	13	22	28.0
40.5N 65.5W 260km 50yr	3	32	10	22	21	9	2	2	0	34	35	69	25.2
40.5N 65.5W 400km 50yr	7	47	15	32	27	14	5	3	0	49	54	103	24.1
040N-041N 065W-064W 100yr	2	15	6	9	9	1	0	0	0	10	17	27	27.9
40.5N 64.5W 260km 100yr	2	55	24	31	37	18	3	2	0	60	57	117	24.9
40.5N 64.5W 400km 100yr	7	72	35	37	52	29	8	3	0	92	79	171	24.3
040N-041N 065W-064W 50yr	1	12	4	8	6	1	0	0	0	7	13	20	30.0
40.5N 64.5W 260km 50yr	2	38	12	26	24	10	1	2	0	37	40	77	26.3
40.5N 64.5W 400km 50yr	6	47	17	30	34	14	3	3	0	54	53	107	24.8
040N-041N 064W-063W 100yr	1	12	6	6	11	2	0	2	0	15	13	28	31.0
40.5N 63.5W 260km 100yr	5	53	24	29	36	19	3	3	0	61	58	119	25.1
40.5N 63.5W 400km 100yr	8	71	35	36	53	29	7	3	0	92	79	171	24.3
040N-041N 064W-063W 50yr	1	8	4	4	8	1	0	2	0	11	9	20	32.5
40.5N 63.5W 260km 50yr	4	35	12	23	26	9	1	3	0	39	39	78	26.3
40.5N 63.5W 400km 50yr	8	47	17	30	36	15	2	3	0	56	55	111	25.0

Cell or Centre Radius	TD	TS	G	S	S1	S2	S3	S4	S5	H	<H	All	Spd
040N-041N 063W-062W 100yr	0	12	6	6	13	3	0	2	0	18	12	30	30.9
40.5N 62.5W 260km 100yr	5	52	23	29	34	19	3	3	0	59	57	116	25.2
40.5N 62.5W 400km 100yr	7	75	39	36	57	28	7	3	0	95	82	177	24.9
040N-041N 063W-062W 50yr	0	8	4	4	11	1	0	2	0	14	8	22	32.9
40.5N 62.5W 260km 50yr	5	33	11	22	25	8	1	3	0	37	38	75	26.1
40.5N 62.5W 400km 50yr	7	51	21	30	40	13	2	3	0	58	58	116	25.8
040N-041N 062W-061W 100yr	1	8	3	5	9	2	0	1	0	12	9	21	29.5
40.5N 61.5W 260km 100yr	5	49	24	25	34	18	3	3	0	58	54	112	25.6
40.5N 61.5W 400km 100yr	7	72	40	32	52	35	6	3	0	96	79	175	25.1
040N-041N 062W-061W 50yr	1	6	3	3	6	0	0	1	0	7	7	14	27.5
40.5N 61.5W 260km 50yr	4	34	15	19	25	7	1	3	0	36	38	74	26.5
40.5N 61.5W 400km 50yr	6	50	25	25	39	15	2	3	0	59	56	115	26.1
040N-041N 061W-060W 100yr	1	10	5	5	8	4	0	1	0	13	11	24	28.2
40.5N 60.5W 260km 100yr	5	50	28	22	36	16	3	3	0	58	55	113	26.8
40.5N 60.5W 400km 100yr	6	72	38	34	50	34	6	3	0	93	78	171	25.2
040N-041N 061W-060W 50yr	1	6	3	3	5	1	0	1	0	7	7	14	27.5
40.5N 60.5W 260km 50yr	5	34	17	17	28	5	1	3	0	37	39	76	27.7
40.5N 60.5W 400km 50yr	6	48	23	25	37	16	2	3	0	58	54	112	26.2
040N-041N 060W-059W 100yr	3	10	4	6	14	2	1	0	0	17	13	30	27.7
40.5N 59.5W 260km 100yr	5	50	27	23	42	14	4	2	0	62	55	117	27.1
40.5N 59.5W 400km 100yr	6	75	38	37	46	32	5	4	0	87	81	168	25.7
040N-041N 060W-059W 50yr	3	5	2	3	9	1	1	0	0	11	8	19	24.8
40.5N 59.5W 260km 50yr	5	33	16	17	31	5	2	2	0	40	38	78	28.1
40.5N 59.5W 400km 50yr	5	52	25	27	36	16	1	3	0	56	57	113	26.6
040N-041N 059W-058W 100yr	1	10	5	5	15	3	1	0	0	19	11	30	25.6
40.5N 58.5W 260km 100yr	3	49	25	24	34	15	4	2	0	55	52	107	27.1
40.5N 58.5W 400km 100yr	6	71	37	34	47	32	6	4	0	89	77	166	26.3
040N-041N 059W-058W 50yr	1	5	3	2	11	1	1	0	0	13	6	19	24.9
40.5N 58.5W 260km 50yr	3	33	16	17	24	7	2	2	0	35	36	71	27.5
40.5N 58.5W 400km 50yr	6	49	24	25	38	15	2	3	0	58	55	113	27.3
040N-041N 058W-057W 100yr	2	14	8	6	14	1	1	0	0	16	16	32	26.5
40.5N 57.5W 260km 100yr	2	49	26	23	34	14	3	1	0	52	51	103	26.7
40.5N 57.5W 400km 100yr	6	73	37	36	48	28	7	3	0	86	79	165	26.4
040N-041N 058W-057W 50yr	2	9	5	4	10	0	1	0	0	11	11	22	24.7
40.5N 57.5W 260km 50yr	2	34	19	15	24	6	2	0	0	32	36	68	26.1
40.5N 57.5W 400km 50yr	6	51	25	26	36	15	3	2	0	56	57	113	27.5
040N-041N 057W-056W 100yr	0	13	7	6	9	1	1	0	0	11	13	24	25.6
40.5N 56.5W 260km 100yr	3	45	22	23	35	14	4	1	0	54	48	102	26.7
40.5N 56.5W 400km 100yr	7	70	35	35	44	27	6	3	0	80	77	157	26.8
040N-041N 057W-056W 50yr	0	7	4	3	6	1	1	0	0	8	7	15	24.4
40.5N 56.5W 260km 50yr	3	33	16	17	23	8	3	0	0	34	36	70	25.4
40.5N 56.5W 400km 50yr	7	48	23	25	34	13	3	2	0	52	55	107	27.5

Cell or Centre Radius	TD	TS	G	S	S1	S2	S3	S4	S5	H	<H	All	Spd
040N-041N 056W-055W 100yr	1	13	7	6	5	3	1	0	0	9	14	23	23.9
40.5N 55.5W 260km 100yr	3	45	20	25	38	13	2	1	0	54	48	102	27.0
40.5N 55.5W 400km 100yr	5	69	34	35	52	23	6	2	0	83	74	157	26.6
040N-041N 056W-055W 50yr	1	8	4	4	3	1	1	0	0	5	9	14	23.1
40.5N 55.5W 260km 50yr	3	33	14	19	24	7	2	0	0	33	36	69	26.3
40.5N 55.5W 400km 50yr	5	49	24	25	35	14	4	1	0	54	54	108	26.9
040N-041N 055W-054W 100yr	1	13	5	8	12	5	1	1	0	19	14	33	26.6
40.5N 54.5W 260km 100yr	3	43	19	24	35	11	2	1	0	49	46	95	26.4
40.5N 54.5W 400km 100yr	5	66	32	34	48	23	6	1	0	78	71	149	26.1
040N-041N 055W-054W 50yr	1	10	5	5	10	3	1	0	0	14	11	25	26.3
40.5N 54.5W 260km 50yr	3	32	14	18	24	7	2	0	0	33	35	68	26.4
40.5N 54.5W 400km 50yr	5	48	24	24	30	15	3	0	0	48	53	101	26.1
040N-041N 054W-053W 100yr	0	10	5	5	11	5	0	1	0	17	10	27	28.4
40.5N 53.5W 260km 100yr	3	40	19	21	32	12	2	1	0	47	43	90	26.5
40.5N 53.5W 400km 100yr	6	61	29	32	49	22	6	1	0	78	67	145	26.3
040N-041N 054W-053W 50yr	0	8	5	3	9	3	0	0	0	12	8	20	28.2
40.5N 53.5W 260km 50yr	3	30	15	15	26	7	2	0	0	35	33	68	26.6
40.5N 53.5W 400km 50yr	6	43	20	23	32	14	4	0	0	50	49	99	26.2
040N-041N 053W-052W 100yr	1	11	4	7	8	3	0	1	0	12	12	24	28.1
40.5N 52.5W 260km 100yr	4	35	16	19	30	13	2	1	0	46	39	85	26.6
40.5N 52.5W 400km 100yr	5	57	25	32	48	22	4	1	0	75	62	137	25.7
040N-041N 053W-052W 50yr	1	9	4	5	7	1	0	0	0	8	10	18	29.6
40.5N 52.5W 260km 50yr	4	24	12	12	23	7	2	0	0	32	28	60	27.1
40.5N 52.5W 400km 50yr	5	40	18	22	32	13	3	0	0	48	45	93	25.7
040N-041N 052W-051W 100yr	0	13	5	8	7	0	0	0	0	7	13	20	29.3
40.5N 51.5W 260km 100yr	3	34	13	21	30	12	2	1	0	45	37	82	26.4
40.5N 51.5W 400km 100yr	6	54	25	29	45	21	4	1	0	71	60	131	25.7
040N-041N 052W-051W 50yr	0	10	5	5	6	0	0	0	0	6	10	16	30.7
40.5N 51.5W 260km 50yr	3	26	11	15	23	7	1	0	0	31	29	60	27.0
40.5N 51.5W 400km 50yr	5	38	18	20	33	11	3	0	0	47	43	90	26.0
040N-041N 051W-050W 100yr	0	12	4	8	6	2	0	0	0	8	12	20	25.1
40.5N 50.5W 260km 100yr	3	32	12	20	30	16	0	1	0	47	35	82	26.5
40.5N 50.5W 400km 100yr	7	51	24	27	45	20	4	1	0	70	58	128	25.8
040N-041N 051W-050W 50yr	0	10	4	6	5	2	0	0	0	7	10	17	25.9
40.5N 50.5W 260km 50yr	3	25	12	13	25	7	0	0	0	32	28	60	27.2
40.5N 50.5W 400km 50yr	6	34	17	17	34	10	3	0	0	47	40	87	25.6
040N-041N 050W-049W 100yr	1	13	3	10	5	2	0	0	0	7	14	21	26.6
40.5N 49.5W 260km 100yr	3	36	14	22	24	15	0	1	0	40	39	79	25.6
40.5N 49.5W 400km 100yr	7	48	22	26	44	23	2	1	0	70	55	125	25.9
040N-041N 050W-049W 50yr	1	12	3	9	5	2	0	0	0	7	13	20	26.9
40.5N 49.5W 260km 50yr	3	28	12	16	20	7	0	0	0	27	31	58	26.6
40.5N 49.5W 400km 50yr	6	33	17	16	32	13	1	0	0	46	39	85	25.7

Cell or Centre Radius	TD	TS	G	S	S1	S2	S3	S4	S5	H	<H	All	Spd
040N-041N 049W-048W 100yr	0	11	2	9	3	3	0	0	0	6	11	17	23.1
40.5N 48.5W 260km 100yr	2	32	13	19	25	13	0	0	0	38	34	72	26.7
40.5N 48.5W 400km 100yr	6	47	19	28	43	19	3	1	0	66	53	119	26.3
040N-041N 049W-048W 50yr	0	9	2	7	3	1	0	0	0	4	9	13	22.5
40.5N 48.5W 260km 50yr	2	23	11	12	21	7	0	0	0	28	25	53	26.8
40.5N 48.5W 400km 50yr	5	33	15	18	32	10	2	0	0	44	38	82	26.4
040N-041N 048W-047W 100yr	0	9	3	6	6	6	0	0	0	12	9	21	24.4
40.5N 47.5W 260km 100yr	3	37	13	24	20	14	0	0	0	34	40	74	26.4
40.5N 47.5W 400km 100yr	4	49	22	27	41	20	3	0	0	64	53	117	25.9
040N-041N 048W-047W 50yr	0	6	2	4	4	2	0	0	0	6	6	12	24.7
40.5N 47.5W 260km 50yr	3	27	10	17	15	9	0	0	0	24	30	54	26.2
40.5N 47.5W 400km 50yr	4	35	17	18	30	11	2	0	0	43	39	82	26.4
040N-041N 047W-046W 100yr	0	8	3	5	6	6	0	0	0	12	8	20	25.9
40.5N 46.5W 260km 100yr	3	34	14	20	22	13	1	0	0	36	37	73	26.7
40.5N 46.5W 400km 100yr	3	48	20	28	34	19	1	0	0	54	51	105	25.8
040N-041N 047W-046W 50yr	0	5	2	3	4	2	0	0	0	6	5	11	19.8
40.5N 46.5W 260km 50yr	3	25	11	14	17	7	1	0	0	25	28	53	26.4
40.5N 46.5W 400km 50yr	3	34	16	18	27	11	1	0	0	39	37	76	25.8
040N-041N 046W-045W 100yr	0	4	2	2	4	4	0	0	0	8	4	12	31.8
40.5N 45.5W 260km 100yr	2	36	14	22	18	13	1	0	0	32	38	70	27.0
40.5N 45.5W 400km 100yr	4	50	20	30	29	17	1	0	0	47	54	101	25.8
040N-041N 046W-045W 50yr	0	2	2	0	2	1	0	0	0	3	2	5	27.0
40.5N 45.5W 260km 50yr	2	25	10	15	13	7	1	0	0	21	27	48	26.3
40.5N 45.5W 400km 50yr	4	35	15	20	23	11	1	0	0	35	39	74	25.8

041°N to 042°N

041N-042N 070W-069W 100yr	3	9	6	3	3	3	1	0	0	7	12	19	26.7
41.5N 69.5W 260km 100yr	8	50	28	22	18	10	5	0	0	33	58	91	23.7
41.5N 69.5W 400km 100yr	11	64	34	30	26	22	8	1	0	57	75	132	24.3
041N-042N 070W-069W 50yr	2	6	3	3	1	1	1	0	0	3	8	11	21.6
41.5N 69.5W 260km 50yr	6	32	14	18	8	6	3	0	0	17	38	55	23.4
41.5N 69.5W 400km 50yr	8	41	16	25	14	14	3	1	0	32	49	81	24.3
041N-042N 069W-068W 100yr	2	8	6	2	6	3	2	0	0	11	10	21	23.7
41.5N 68.5W 260km 100yr	5	47	24	23	22	10	5	0	0	37	52	89	24.7
41.5N 68.5W 400km 100yr	10	66	36	30	29	21	9	2	0	61	76	137	24.7
041N-042N 069W-068W 50yr	1	4	3	1	3	0	2	0	0	5	5	10	22.9
41.5N 68.5W 260km 50yr	4	30	10	20	10	7	3	0	0	20	34	54	24.8
41.5N 68.5W 400km 50yr	8	42	17	25	14	14	4	2	0	34	50	84	24.7
041N-042N 068W-067W 100yr	1	13	7	6	8	4	0	0	0	12	14	26	22.5
41.5N 67.5W 260km 100yr	5	50	27	23	30	8	6	0	0	44	55	99	25.1
41.5N 67.5W 400km 100yr	10	69	36	33	32	21	10	2	0	65	79	144	24.3
041N-042N 068W-067W 50yr	0	8	3	5	3	2	0	0	0	5	8	13	23.1
41.5N 67.5W 260km 50yr	4	30	11	19	15	4	4	0	0	23	34	57	25.1
41.5N 67.5W 400km 50yr	8	44	17	27	16	14	5	2	0	37	52	89	24.7

Cell or Centre Radius	TD	TS	G	S	S1	S2	S3	S4	S5	H	<H	All	Spd
041N-042N 067W-066W 100yr	0	19	9	10	10	5	0	0	0	15	19	34	23.8
41.5N 66.5W 260km 100yr	6	50	23	27	29	12	5	0	0	46	56	102	25.3
41.5N 66.5W 400km 100yr	8	70	34	36	40	21	9	2	0	72	78	150	24.6
041N-042N 067W-066W 50yr	0	12	4	8	6	3	0	0	0	9	12	21	25.0
41.5N 66.5W 260km 50yr	5	32	9	23	15	6	3	0	0	24	37	61	25.6
41.5N 66.5W 400km 50yr	6	45	15	30	22	13	4	2	0	41	51	92	24.9
041N-042N 066W-065W 100yr	0	15	8	7	6	4	1	0	0	11	15	26	25.5
41.5N 65.5W 260km 100yr	5	48	23	25	38	11	4	1	0	54	53	107	25.6
41.5N 65.5W 400km 100yr	8	68	32	36	45	22	7	3	0	77	76	153	25.1
041N-042N 066W-065W 50yr	0	8	4	4	4	3	0	0	0	7	8	15	26.0
41.5N 65.5W 260km 50yr	4	30	10	20	23	4	2	1	0	30	34	64	26.9
41.5N 65.5W 400km 50yr	6	45	15	30	25	12	4	3	0	44	51	95	25.3
041N-042N 065W-064W 100yr	1	20	7	13	8	2	1	0	0	11	21	32	25.0
41.5N 64.5W 260km 100yr	4	48	22	26	37	13	3	2	0	55	52	107	25.4
41.5N 64.5W 400km 100yr	8	67	30	37	46	27	5	3	0	81	75	156	25.5
041N-042N 065W-064W 50yr	0	13	3	10	5	1	0	0	0	6	13	19	25.8
41.5N 64.5W 260km 50yr	4	30	9	21	24	6	1	2	0	33	34	67	26.8
41.5N 64.5W 400km 50yr	7	42	12	30	28	12	3	3	0	46	49	95	26.1
041N-042N 064W-063W 100yr	3	15	5	10	3	1	0	0	0	4	18	22	25.1
41.5N 63.5W 260km 100yr	4	51	20	31	38	11	3	2	0	54	55	109	26.7
41.5N 63.5W 400km 100yr	7	64	31	33	51	27	3	3	0	84	71	155	25.2
041N-042N 064W-063W 50yr	2	12	3	9	1	0	0	0	0	1	14	15	26.5
41.5N 63.5W 260km 50yr	4	34	10	24	24	5	1	2	0	32	38	70	28.4
41.5N 63.5W 400km 50yr	6	40	13	27	34	11	1	3	0	49	46	95	25.8
041N-042N 063W-062W 100yr	2	16	8	8	10	2	1	0	0	13	18	31	31.2
41.5N 62.5W 260km 100yr	6	49	21	28	33	12	2	3	0	50	55	105	27.2
41.5N 62.5W 400km 100yr	5	65	34	31	53	27	5	3	0	88	70	158	24.8
041N-042N 063W-062W 50yr	2	11	3	8	8	1	1	0	0	10	13	23	34.3
41.5N 62.5W 260km 50yr	4	31	11	20	23	5	0	3	0	31	35	66	29.4
41.5N 62.5W 400km 50yr	5	43	18	25	35	12	2	3	0	52	48	100	25.5
041N-042N 062W-061W 100yr	2	16	7	9	11	2	1	1	0	15	18	33	32.8
41.5N 61.5W 260km 100yr	6	50	21	29	38	12	1	3	0	54	56	110	27.5
41.5N 61.5W 400km 100yr	6	74	36	38	53	25	5	3	0	86	80	166	25.4
041N-042N 062W-061W 50yr	2	11	3	8	9	1	1	1	0	12	13	25	35.3
41.5N 61.5W 260km 50yr	5	32	11	21	27	4	0	3	0	34	37	71	29.2
41.5N 61.5W 400km 50yr	5	50	20	30	36	11	2	3	0	52	55	107	26.2
041N-042N 061W-060W 100yr	0	14	8	6	7	2	1	1	0	11	14	25	32.2
41.5N 60.5W 260km 100yr	6	47	21	26	36	12	3	3	0	54	53	107	27.4
41.5N 60.5W 400km 100yr	6	75	35	40	52	24	4	3	0	83	81	164	25.9
041N-042N 061W-060W 50yr	0	9	4	5	6	0	1	1	0	8	9	17	34.5
41.5N 60.5W 260km 50yr	5	30	11	19	27	4	1	3	0	35	35	70	28.8
41.5N 60.5W 400km 50yr	5	50	20	30	37	10	1	3	0	51	55	106	26.9

Cell or Centre Radius	TD	TS	G	S	S1	S2	S3	S4	S5	H	<H	All	Spd
041N-042N 060W-059W 100yr	0	10	5	5	9	3	1	0	0	13	10	23	33.4
41.5N 59.5W 260km 100yr	5	52	28	24	35	13	4	2	0	54	57	111	27.5
41.5N 59.5W 400km 100yr	6	75	36	39	53	24	3	3	0	83	81	164	26.5
041N-042N 060W-059W 50yr	0	7	3	4	6	1	1	0	0	8	7	15	34.1
41.5N 59.5W 260km 50yr	5	33	16	17	27	5	2	2	0	36	38	74	28.5
41.5N 59.5W 400km 50yr	5	52	23	29	37	10	1	3	0	51	57	108	27.4
041N-042N 059W-058W 100yr	1	8	3	5	11	3	1	0	0	15	9	24	27.9
41.5N 58.5W 260km 100yr	5	51	25	26	36	11	3	2	0	52	56	108	28.1
41.5N 58.5W 400km 100yr	6	73	35	38	54	25	3	4	0	86	79	165	26.7
041N-042N 059W-058W 50yr	1	4	2	2	6	1	1	0	0	8	5	13	26.3
41.5N 58.5W 260km 50yr	5	33	14	19	24	5	2	2	0	33	38	71	29.0
41.5N 58.5W 400km 50yr	5	50	22	28	39	13	1	3	0	56	55	111	27.6
041N-042N 058W-057W 100yr	2	12	5	7	16	3	1	0	0	20	14	34	28.1
41.5N 57.5W 260km 100yr	5	52	25	27	32	10	4	1	0	47	57	104	28.4
41.5N 57.5W 400km 100yr	5	74	35	39	48	23	5	3	0	79	79	158	27.5
041N-042N 058W-057W 50yr	2	7	3	4	10	1	1	0	0	12	9	21	26.2
41.5N 57.5W 260km 50yr	5	35	15	20	22	3	3	1	0	29	40	69	28.7
41.5N 57.5W 400km 50yr	5	52	23	29	34	13	3	2	0	52	57	109	28.0
041N-042N 057W-056W 100yr	1	15	4	11	13	1	0	0	0	14	16	30	27.2
41.5N 56.5W 260km 100yr	3	50	24	26	36	11	4	1	0	52	53	105	28.6
41.5N 56.5W 400km 100yr	7	72	37	35	47	22	4	3	0	76	79	155	27.5
041N-042N 057W-056W 50yr	1	11	3	8	8	1	0	0	0	9	12	21	25.1
41.5N 56.5W 260km 50yr	3	33	15	18	26	6	3	1	0	36	36	72	28.5
41.5N 56.5W 400km 50yr	7	52	26	26	30	11	3	2	0	46	59	105	28.1
041N-042N 056W-055W 100yr	1	15	6	9	10	1	0	0	0	11	16	27	26.5
41.5N 55.5W 260km 100yr	2	47	20	27	36	12	2	1	0	51	49	100	28.4
41.5N 55.5W 400km 100yr	7	68	36	32	51	19	5	2	0	77	75	152	28.1
041N-042N 056W-055W 50yr	1	10	3	7	8	1	0	0	0	9	11	20	25.1
41.5N 55.5W 260km 50yr	2	31	13	18	25	6	2	0	0	33	33	66	27.8
41.5N 55.5W 400km 50yr	7	49	25	24	34	10	4	1	0	49	56	105	28.6
041N-042N 055W-054W 100yr	2	11	5	6	12	1	1	0	0	14	13	27	25.8
41.5N 54.5W 260km 100yr	2	46	18	28	35	10	3	1	0	49	48	97	28.2
41.5N 54.5W 400km 100yr	6	65	33	32	52	19	5	2	0	78	71	149	28.2
041N-042N 055W-054W 50yr	2	5	2	3	9	1	1	0	0	11	7	18	23.5
41.5N 54.5W 260km 50yr	2	30	12	18	26	4	3	0	0	33	32	65	27.7
41.5N 54.5W 400km 50yr	6	47	22	25	35	10	4	1	0	50	53	103	28.6
041N-042N 054W-053W 100yr	1	7	2	5	12	3	0	0	0	15	8	23	28.3
41.5N 53.5W 260km 100yr	3	45	16	29	35	9	1	1	0	46	48	94	28.4
41.5N 53.5W 400km 100yr	5	65	30	35	50	19	4	2	0	75	70	145	27.7
041N-042N 054W-053W 50yr	1	5	2	3	9	2	0	0	0	11	6	17	27.5
41.5N 53.5W 260km 50yr	3	30	11	19	26	5	1	0	0	32	33	65	28.3
41.5N 53.5W 400km 50yr	5	46	20	26	35	9	4	1	0	49	51	100	28.0

Cell or Centre Radius	TD	TS	G	S	S1	S2	S3	S4	S5	H	<H	All	Spd
041N-042N 053W-052W 100yr	1	8	3	5	11	5	0	1	0	17	9	26	28.2
41.5N 52.5W 260km 100yr	3	40	16	24	32	11	1	1	0	45	43	88	28.3
41.5N 52.5W 400km 100yr	4	63	29	34	48	18	4	1	0	71	67	138	27.6
041N-042N 053W-052W 50yr	1	6	3	3	8	2	0	0	0	10	7	17	28.5
41.5N 52.5W 260km 50yr	3	29	13	16	25	7	1	0	0	33	32	65	28.1
41.5N 52.5W 400km 50yr	4	42	19	23	34	10	3	0	0	47	46	93	27.8
041N-042N 052W-051W 100yr	0	12	5	7	9	4	1	0	0	14	12	26	25.8
41.5N 51.5W 260km 100yr	4	38	16	22	32	10	1	1	0	44	42	86	28.0
41.5N 51.5W 400km 100yr	5	63	26	37	47	18	3	1	0	69	68	137	27.3
041N-042N 052W-051W 50yr	0	10	5	5	9	2	0	0	0	11	10	21	26.1
41.5N 51.5W 260km 50yr	4	26	12	14	25	6	1	0	0	32	30	62	27.9
41.5N 51.5W 400km 50yr	5	42	17	25	35	9	2	0	0	46	47	93	27.9
041N-042N 051W-050W 100yr	0	13	4	9	6	2	0	0	0	8	13	21	30.7
41.5N 50.5W 260km 100yr	4	39	14	25	28	12	0	1	0	41	43	84	28.2
41.5N 50.5W 400km 100yr	6	59	27	32	46	17	3	1	0	67	65	132	27.2
041N-042N 051W-050W 50yr	0	10	4	6	6	2	0	0	0	8	10	18	31.0
41.5N 50.5W 260km 50yr	4	29	13	16	22	7	0	0	0	29	33	62	28.1
41.5N 50.5W 400km 50yr	6	41	18	23	35	8	2	0	0	45	47	92	27.4
041N-042N 050W-049W 100yr	1	16	6	10	4	2	0	0	0	6	17	23	31.1
41.5N 49.5W 260km 100yr	3	38	15	23	30	15	0	1	0	46	41	87	28.5
41.5N 49.5W 400km 100yr	6	54	25	29	46	16	3	1	0	66	60	126	27.4
041N-042N 050W-049W 50yr	1	13	5	8	4	2	0	0	0	6	14	20	31.3
41.5N 49.5W 260km 50yr	3	29	12	17	22	7	0	0	0	29	32	61	28.8
41.5N 49.5W 400km 50yr	6	38	19	19	35	8	2	0	0	45	44	89	27.2
041N-042N 049W-048W 100yr	1	16	8	8	4	2	0	0	0	6	17	23	29.1
41.5N 48.5W 260km 100yr	1	37	13	24	29	12	1	0	0	42	38	80	27.1
41.5N 48.5W 400km 100yr	6	54	23	31	40	20	1	1	0	62	60	122	27.4
041N-042N 049W-048W 50yr	1	14	7	7	4	2	0	0	0	6	15	21	29.3
41.5N 48.5W 260km 50yr	1	28	11	17	20	6	0	0	0	26	29	55	26.8
41.5N 48.5W 400km 50yr	6	38	18	20	30	11	1	0	0	42	44	86	27.4
041N-042N 048W-047W 100yr	1	13	7	6	5	3	0	0	0	8	14	22	29.7
41.5N 47.5W 260km 100yr	2	37	11	26	22	11	1	0	0	34	39	73	27.7
41.5N 47.5W 400km 100yr	5	51	22	29	38	21	2	0	0	61	56	117	27.0
041N-042N 048W-047W 50yr	1	11	6	5	4	2	0	0	0	6	12	18	31.1
41.5N 47.5W 260km 50yr	2	28	10	18	15	5	1	0	0	21	30	51	27.3
41.5N 47.5W 400km 50yr	5	36	17	19	29	11	1	0	0	41	41	82	26.9
041N-042N 047W-046W 100yr	0	12	4	8	4	3	0	0	0	7	12	19	25.0
41.5N 46.5W 260km 100yr	1	38	15	23	18	12	1	0	0	31	39	70	28.6
41.5N 46.5W 400km 100yr	3	51	22	29	37	18	2	0	0	57	54	111	26.8
041N-042N 047W-046W 50yr	0	9	3	6	2	1	0	0	0	3	9	12	21.8
41.5N 46.5W 260km 50yr	1	28	11	17	14	7	1	0	0	22	29	51	28.2
41.5N 46.5W 400km 50yr	3	36	17	19	27	11	1	0	0	39	39	78	26.8

Cell or Centre Radius	TD	TS	G	S	S1	S2	S3	S4	S5	H	<H	All	Spd
041N-042N 046W-045W 100yr	0	8	2	6	4	5	0	0	0	9	8	17	27.0
41.5N 45.5W 260km 100yr	0	36	16	20	19	13	1	0	0	33	36	69	28.7
41.5N 45.5W 400km 100yr	4	49	21	28	35	17	1	0	0	53	53	106	27.2
041N-042N 046W-045W 50yr	0	6	2	4	2	2	0	0	0	4	6	10	21.0
41.5N 45.5W 260km 50yr	0	25	11	14	15	8	1	0	0	24	25	49	28.1
41.5N 45.5W 400km 50yr	4	36	16	20	26	10	1	0	0	37	40	77	27.3

042°N to 043°N

042N-043N 070W-069W 100yr	2	8	5	3	3	0	0	0	0	3	10	13	30.7
42.5N 69.5W 260km 100yr	9	37	20	17	16	9	4	0	0	29	46	75	24.6
42.5N 69.5W 400km 100yr	10	55	29	26	22	17	6	0	0	45	65	110	25.5
042N-043N 070W-069W 50yr	2	4	1	3	1	0	0	0	0	1	6	7	27.3
42.5N 69.5W 260km 50yr	6	25	11	14	6	6	3	0	0	15	31	46	23.8
42.5N 69.5W 400km 50yr	7	36	14	22	11	11	3	0	0	25	43	68	25.8
042N-043N 069W-068W 100yr	3	9	5	4	4	2	1	0	0	7	12	19	29.1
42.5N 68.5W 260km 100yr	8	40	21	19	18	9	4	0	0	31	48	79	25.0
42.5N 68.5W 400km 100yr	10	63	33	30	28	17	7	0	0	52	73	125	24.8
042N-043N 069W-068W 50yr	3	6	2	4	1	0	1	0	0	2	9	11	25.8
42.5N 68.5W 260km 50yr	5	23	8	15	7	6	3	0	0	16	28	44	24.1
42.5N 68.5W 400km 50yr	7	40	15	25	14	11	4	0	0	29	47	76	24.9
042N-043N 068W-067W 100yr	2	4	4	0	6	2	0	0	0	8	6	14	28.2
42.5N 67.5W 260km 100yr	7	40	20	20	23	10	3	0	0	36	47	83	25.5
42.5N 67.5W 400km 100yr	10	65	36	29	33	15	8	0	0	56	75	131	25.1
042N-043N 068W-067W 50yr	2	2	2	0	2	0	0	0	0	2	4	6	23.5
42.5N 67.5W 260km 50yr	4	24	8	16	11	5	2	0	0	18	28	46	24.9
42.5N 67.5W 400km 50yr	8	42	17	25	16	11	4	0	0	31	50	81	25.5
042N-043N 067W-066W 100yr	3	7	2	5	11	2	0	0	0	13	10	23	23.1
42.5N 66.5W 260km 100yr	7	44	20	24	29	8	3	0	0	40	51	91	25.8
42.5N 66.5W 400km 100yr	10	64	32	32	38	18	7	2	0	65	74	139	25.6
042N-043N 067W-066W 50yr	2	4	0	4	5	1	0	0	0	6	6	12	24.8
42.5N 66.5W 260km 50yr	4	27	7	20	15	3	2	0	0	20	31	51	25.5
42.5N 66.5W 400km 50yr	7	40	14	26	21	11	4	2	0	38	47	85	26.5
042N-043N 066W-065W 100yr	3	14	5	9	8	3	0	0	0	11	17	28	24.9
42.5N 65.5W 260km 100yr	6	43	19	24	28	9	2	0	0	39	49	88	26.1
42.5N 65.5W 400km 100yr	9	62	29	33	44	18	5	2	0	69	71	140	26.4
042N-043N 066W-065W 50yr	2	8	1	7	4	2	0	0	0	6	10	16	27.4
42.5N 65.5W 260km 50yr	5	26	6	20	14	4	1	0	0	19	31	50	26.8
42.5N 65.5W 400km 50yr	7	41	14	27	24	9	3	2	0	38	48	86	26.9
042N-043N 065W-064W 100yr	2	17	6	11	9	2	0	0	0	11	19	30	26.3
42.5N 64.5W 260km 100yr	4	44	21	23	34	12	1	1	0	48	48	96	27.2
42.5N 64.5W 400km 100yr	8	65	31	34	47	17	5	2	0	71	73	144	26.2
042N-043N 065W-064W 50yr	2	10	2	8	6	1	0	0	0	7	12	19	28.6
42.5N 64.5W 260km 50yr	3	27	8	19	22	5	0	1	0	28	30	58	29.3
42.5N 64.5W 400km 50yr	6	43	14	29	27	7	3	2	0	39	49	88	27.1

Cell or Centre Radius	TD	TS	G	S	S1	S2	S3	S4	S5	H	<H	All	Spd
042N-043N 064W-063W 100yr	2	18	7	11	9	2	0	0	0	11	20	31	25.1
42.5N 63.5W 260km 100yr	4	45	18	27	34	9	1	2	0	46	49	95	27.3
42.5N 63.5W 400km 100yr	7	63	31	32	48	21	4	3	0	76	70	146	26.4
042N-043N 064W-063W 50yr	1	10	3	7	5	1	0	0	0	6	11	17	27.9
42.5N 63.5W 260km 50yr	3	26	7	19	21	5	0	2	0	28	29	57	30.0
42.5N 63.5W 400km 50yr	5	39	13	26	30	9	2	3	0	44	44	88	27.1
042N-043N 063W-062W 100yr	2	15	4	11	6	2	0	0	0	8	17	25	24.1
42.5N 62.5W 260km 100yr	5	47	21	26	33	8	1	2	0	44	52	96	27.6
42.5N 62.5W 400km 100yr	7	64	30	34	54	21	3	3	0	81	71	152	26.7
042N-043N 063W-062W 50yr	1	10	2	8	3	1	0	0	0	4	11	15	28.5
42.5N 62.5W 260km 50yr	3	29	9	20	22	3	0	2	0	27	32	59	30.5
42.5N 62.5W 400km 50yr	6	38	12	26	34	9	1	3	0	47	44	91	27.3
042N-043N 062W-061W 100yr	3	14	6	8	10	1	0	0	0	11	17	28	28.9
42.5N 61.5W 260km 100yr	4	49	20	29	32	9	1	2	0	44	53	97	28.4
42.5N 61.5W 400km 100yr	8	66	31	35	54	21	4	3	0	82	74	156	26.3
042N-043N 062W-061W 50yr	3	10	3	7	8	1	0	0	0	9	13	22	33.5
42.5N 61.5W 260km 50yr	3	32	9	23	22	2	1	2	0	27	35	62	30.3
42.5N 61.5W 400km 50yr	6	40	16	24	35	9	1	3	0	48	46	94	27.1
042N-043N 061W-060W 100yr	3	16	7	9	7	2	1	1	0	11	19	30	31.6
42.5N 60.5W 260km 100yr	6	49	21	28	35	11	1	2	0	49	55	104	28.4
42.5N 60.5W 400km 100yr	8	71	32	39	50	20	4	3	0	77	79	156	26.3
042N-043N 061W-060W 50yr	3	9	2	7	4	1	1	1	0	7	12	19	36.2
42.5N 60.5W 260km 50yr	5	31	11	20	24	4	1	2	0	31	36	67	30.3
42.5N 60.5W 400km 50yr	6	43	16	27	35	9	1	3	0	48	49	97	27.1
042N-043N 060W-059W 100yr	3	17	7	10	5	2	1	1	0	9	20	29	35.9
42.5N 59.5W 260km 100yr	6	49	21	28	37	11	2	1	0	51	55	106	29.1
42.5N 59.5W 400km 100yr	7	71	33	38	51	18	3	3	0	75	78	153	27.0
042N-043N 060W-059W 50yr	3	11	3	8	5	0	1	1	0	7	14	21	40.4
42.5N 59.5W 260km 50yr	5	31	10	21	26	4	2	1	0	33	36	69	30.3
42.5N 59.5W 400km 50yr	5	48	19	29	35	7	1	3	0	46	53	99	27.8
042N-043N 059W-058W 100yr	1	13	7	6	6	2	1	1	0	10	14	24	35.7
42.5N 58.5W 260km 100yr	5	51	23	28	39	9	2	1	0	51	56	107	29.7
42.5N 58.5W 400km 100yr	8	75	35	40	48	18	3	3	0	72	83	155	27.4
042N-043N 059W-058W 50yr	1	8	3	5	5	1	1	1	0	8	9	17	38.7
42.5N 58.5W 260km 50yr	5	34	13	21	25	4	2	1	0	32	39	71	30.6
42.5N 58.5W 400km 50yr	6	51	21	30	34	7	1	3	0	45	57	102	28.1
042N-043N 058W-057W 100yr	0	15	7	8	8	4	1	0	0	13	15	28	32.2
42.5N 57.5W 260km 100yr	4	50	23	27	33	9	2	1	0	45	54	99	29.7
42.5N 57.5W 400km 100yr	7	75	33	42	50	19	3	3	0	75	82	157	28.1
042N-043N 058W-057W 50yr	0	9	4	5	5	1	1	0	0	7	9	16	32.1
42.5N 57.5W 260km 50yr	4	31	12	19	19	4	2	1	0	26	35	61	30.8
42.5N 57.5W 400km 50yr	5	50	19	31	36	11	2	2	0	51	55	106	28.6

Cell or Centre Radius	TD	TS	G	S	S1	S2	S3	S4	S5	H	<H	All	Spd
042N-043N 057W-056W 100yr	0	15	6	9	13	1	1	0	0	15	15	30	32.5
42.5N 56.5W 260km 100yr	6	48	22	26	34	9	3	1	0	47	54	101	29.4
42.5N 56.5W 400km 100yr	6	76	33	43	51	17	5	2	0	75	82	157	28.4
042N-043N 057W-056W 50yr	0	9	4	5	7	0	1	0	0	8	9	17	33.8
42.5N 56.5W 260km 50yr	6	30	12	18	21	4	3	1	0	29	36	65	30.1
42.5N 56.5W 400km 50yr	5	51	19	32	36	8	4	1	0	49	56	105	28.9
042N-043N 056W-055W 100yr	0	19	5	14	8	0	0	0	0	8	19	27	29.2
42.5N 55.5W 260km 100yr	5	46	19	27	36	10	3	1	0	50	51	101	30.0
42.5N 55.5W 400km 100yr	6	69	30	39	48	16	5	2	0	71	75	146	28.6
042N-043N 056W-055W 50yr	0	13	4	9	5	0	0	0	0	5	13	18	28.9
42.5N 55.5W 260km 50yr	5	29	10	19	24	4	3	1	0	32	34	66	30.6
42.5N 55.5W 400km 50yr	6	46	18	28	32	7	4	1	0	44	52	96	28.9
042N-043N 055W-054W 100yr	1	19	9	10	6	1	0	0	0	7	20	27	29.0
42.5N 54.5W 260km 100yr	3	45	19	26	36	11	3	2	0	52	48	100	29.4
42.5N 54.5W 400km 100yr	6	65	29	36	50	15	4	2	0	71	71	142	29.5
042N-043N 055W-054W 50yr	1	12	5	7	5	1	0	0	0	6	13	19	28.6
42.5N 54.5W 260km 50yr	3	29	11	18	26	5	3	1	0	35	32	67	29.6
42.5N 54.5W 400km 50yr	6	46	20	26	34	7	4	1	0	46	52	98	30.0
042N-043N 054W-053W 100yr	1	17	7	10	6	2	0	0	0	8	18	26	27.6
42.5N 53.5W 260km 100yr	4	46	21	25	37	8	2	1	0	48	50	98	29.0
42.5N 53.5W 400km 100yr	6	64	29	35	51	16	4	2	0	73	70	143	28.7
042N-043N 054W-053W 50yr	1	10	3	7	5	2	0	0	0	7	11	18	26.3
42.5N 53.5W 260km 50yr	4	29	13	16	28	3	2	0	0	33	33	66	28.9
42.5N 53.5W 400km 50yr	6	44	19	25	36	8	4	1	0	49	50	99	29.1
042N-043N 053W-052W 100yr	2	8	4	4	10	3	0	0	0	13	10	23	29.9
42.5N 52.5W 260km 100yr	4	46	21	25	36	6	1	1	0	44	50	94	29.5
42.5N 52.5W 400km 100yr	6	63	26	37	51	15	3	2	0	71	69	140	28.9
042N-043N 053W-052W 50yr	2	5	2	3	6	2	0	0	0	8	7	15	28.7
42.5N 52.5W 260km 50yr	4	30	14	16	27	3	1	0	0	31	34	65	29.6
42.5N 52.5W 400km 50yr	6	43	16	27	36	8	3	1	0	48	49	97	29.3
042N-043N 052W-051W 100yr	1	8	5	3	9	4	1	0	0	14	9	23	28.4
42.5N 51.5W 260km 100yr	4	45	20	25	31	9	0	1	0	41	49	90	29.5
42.5N 51.5W 400km 100yr	5	58	22	36	49	15	2	2	0	68	63	131	28.9
042N-043N 052W-051W 50yr	1	6	3	3	5	1	0	0	0	6	7	13	28.7
42.5N 51.5W 260km 50yr	4	32	14	18	24	6	0	0	0	30	36	66	29.8
42.5N 51.5W 400km 50yr	5	40	15	25	37	8	2	1	0	48	45	93	29.3
042N-043N 051W-050W 100yr	0	5	3	2	9	3	1	0	0	13	5	18	29.6
42.5N 50.5W 260km 100yr	4	40	17	23	32	9	0	1	0	42	44	86	28.7
42.5N 50.5W 400km 100yr	5	61	24	37	49	17	2	1	0	69	66	135	28.4
042N-043N 051W-050W 50yr	0	5	3	2	5	2	0	0	0	7	5	12	31.2
42.5N 50.5W 260km 50yr	4	29	14	15	24	6	0	0	0	30	33	63	28.7
42.5N 50.5W 400km 50yr	5	42	16	26	36	9	2	0	0	47	47	94	28.5

Cell or Centre Radius	TD	TS	G	S	S1	S2	S3	S4	S5	H	<H	All	Spd
042N-043N 050W-049W 100yr	0	6	2	4	7	2	0	0	0	9	6	15	34.7
42.5N 49.5W 260km 100yr	3	41	16	25	29	9	1	0	0	39	44	83	28.9
42.5N 49.5W 400km 100yr	5	58	24	34	48	15	1	1	0	65	63	128	28.7
042N-043N 050W-049W 50yr	0	6	2	4	6	1	0	0	0	7	6	13	36.6
42.5N 49.5W 260km 50yr	3	31	13	18	22	5	0	0	0	27	34	61	29.0
42.5N 49.5W 400km 50yr	5	40	16	24	35	7	1	0	0	43	45	88	28.5
042N-043N 049W-048W 100yr	0	8	2	6	6	1	0	0	0	7	8	15	34.3
42.5N 48.5W 260km 100yr	3	42	15	27	28	12	1	0	0	41	45	86	28.8
42.5N 48.5W 400km 100yr	5	58	25	33	42	15	1	1	0	59	63	122	28.6
042N-043N 049W-048W 50yr	0	8	2	6	5	1	0	0	0	6	8	14	34.7
42.5N 48.5W 260km 50yr	3	31	12	19	21	7	0	0	0	28	34	62	28.9
42.5N 48.5W 400km 50yr	5	38	17	21	32	7	1	0	0	40	43	83	28.6
042N-043N 048W-047W 100yr	1	17	5	12	9	3	0	0	0	12	18	30	33.9
42.5N 47.5W 260km 100yr	2	39	14	25	26	12	2	0	0	40	41	81	29.8
42.5N 47.5W 400km 100yr	4	55	24	31	39	17	2	0	0	58	59	117	28.1
042N-043N 048W-047W 50yr	1	15	4	11	7	3	0	0	0	10	16	26	34.4
42.5N 47.5W 260km 50yr	2	30	11	19	18	6	1	0	0	25	32	57	29.6
42.5N 47.5W 400km 50yr	4	39	18	21	29	9	1	0	0	39	43	82	27.5
042N-043N 047W-046W 100yr	1	14	4	10	10	2	0	0	0	12	15	27	33.4
42.5N 46.5W 260km 100yr	2	36	16	20	23	11	1	0	0	35	38	73	30.1
42.5N 46.5W 400km 100yr	4	52	23	29	37	17	2	0	0	56	56	112	28.2
042N-043N 047W-046W 50yr	1	12	3	9	8	2	0	0	0	10	13	23	33.8
42.5N 46.5W 260km 50yr	2	28	13	15	16	5	1	0	0	22	30	52	30.1
42.5N 46.5W 400km 50yr	4	36	17	19	26	10	1	0	0	37	40	77	27.5
042N-043N 046W-045W 100yr	1	13	3	10	9	0	1	0	0	10	14	24	31.5
42.5N 45.5W 260km 100yr	1	38	16	22	19	12	1	0	0	32	39	71	29.5
42.5N 45.5W 400km 100yr	2	49	20	29	35	17	1	0	0	53	51	104	28.4
042N-043N 046W-045W 50yr	1	11	3	8	7	0	1	0	0	8	12	20	30.8
42.5N 45.5W 260km 50yr	1	29	13	16	14	6	1	0	0	21	30	51	28.9
42.5N 45.5W 400km 50yr	2	36	14	22	26	9	1	0	0	36	38	74	28.1

043°N to 044°N

Cell or Centre Radius	TD	TS	G	S	S1	S2	S3	S4	S5	H	<H	All	Spd
043N-044N 070W-069W 100yr	3	3	2	1	3	1	0	0	0	4	6	10	26.7
43.5N 69.5W 260km 100yr	9	24	17	7	14	6	1	0	0	21	33	54	27.0
43.5N 69.5W 400km 100yr	11	51	29	22	18	13	4	0	0	35	62	97	25.2
043N-044N 070W-069W 50yr	2	3	2	1	1	1	0	0	0	2	5	7	26.3
43.5N 69.5W 260km 50yr	5	16	9	7	7	4	1	0	0	12	21	33	25.5
43.5N 69.5W 400km 50yr	8	31	14	17	7	9	3	0	0	19	39	58	24.8
043N-044N 069W-068W 100yr	3	6	2	4	3	0	1	0	0	4	9	13	31.4
43.5N 68.5W 260km 100yr	8	32	20	12	19	7	2	0	0	28	40	68	26.4
43.5N 68.5W 400km 100yr	13	51	27	24	25	14	5	0	0	44	64	108	25.3
043N-044N 069W-068W 50yr	3	4	0	4	1	0	1	0	0	2	7	9	30.0
43.5N 68.5W 260km 50yr	5	19	9	10	10	3	2	0	0	15	24	39	25.8
43.5N 68.5W 400km 50yr	8	32	13	19	12	9	3	0	0	24	40	64	25.7

Cell or Centre Radius	TD	TS	G	S	S1	S2	S3	S4	S5	H	<H	All	Spd
043N-044N 068W-067W 100yr	2	7	5	2	4	2	1	0	0	7	9	16	31.1
43.5N 67.5W 260km 100yr	7	32	17	15	21	8	1	0	0	30	39	69	26.6
43.5N 67.5W 400km 100yr	12	55	27	28	30	12	5	0	0	47	67	114	25.2
043N-044N 068W-067W 50yr	2	4	2	2	2	0	1	0	0	3	6	9	26.0
43.5N 67.5W 260km 50yr	5	19	7	12	11	4	1	0	0	16	24	40	26.2
43.5N 67.5W 400km 50yr	7	35	12	23	14	8	3	0	0	25	42	67	25.8
043N-044N 067W-066W 100yr	0	6	5	1	3	3	0	0	0	6	6	12	30.0
43.5N 66.5W 260km 100yr	7	33	18	15	26	9	2	0	0	37	40	77	26.5
43.5N 66.5W 400km 100yr	9	59	29	30	34	11	4	0	0	49	68	117	26.0
043N-044N 067W-066W 50yr	0	3	3	0	2	1	0	0	0	3	3	6	24.6
43.5N 66.5W 260km 50yr	5	20	8	12	13	5	1	0	0	19	25	44	26.6
43.5N 66.5W 400km 50yr	6	37	11	26	16	6	3	0	0	25	43	68	26.6
043N-044N 066W-065W 100yr	1	5	2	3	6	2	0	0	0	8	6	14	25.1
43.5N 65.5W 260km 100yr	6	38	17	21	27	9	2	0	0	38	44	82	26.0
43.5N 65.5W 400km 100yr	8	59	30	29	42	11	4	1	0	58	67	125	27.0
043N-044N 066W-065W 50yr	1	1	0	1	2	1	0	0	0	3	2	5	23.7
43.5N 65.5W 260km 50yr	4	23	7	16	13	4	1	0	0	18	27	45	26.6
43.5N 65.5W 400km 50yr	6	37	11	26	25	4	3	1	0	33	43	76	28.3
043N-044N 065W-064W 100yr	1	9	3	6	5	2	0	0	0	7	10	17	25.9
43.5N 64.5W 260km 100yr	5	39	19	20	28	7	2	0	0	37	44	81	26.6
43.5N 64.5W 400km 100yr	7	59	26	33	44	10	4	2	0	60	66	126	27.6
043N-044N 065W-064W 50yr	1	6	1	5	2	0	0	0	0	2	7	9	28.6
43.5N 64.5W 260km 50yr	3	21	7	14	15	3	1	0	0	19	24	43	27.3
43.5N 64.5W 400km 50yr	5	38	10	28	25	3	3	2	0	33	43	76	28.9
043N-044N 064W-063W 100yr	1	10	4	6	9	2	0	0	0	11	11	22	26.2
43.5N 63.5W 260km 100yr	8	44	19	25	29	8	1	0	0	38	52	90	27.2
43.5N 63.5W 400km 100yr	6	61	29	32	44	13	2	2	0	61	67	128	27.9
043N-044N 064W-063W 50yr	1	7	2	5	5	0	0	0	0	5	8	13	28.3
43.5N 63.5W 260km 50yr	5	27	8	19	17	4	0	0	0	21	32	53	28.8
43.5N 63.5W 400km 50yr	5	38	12	26	28	5	1	2	0	36	43	79	29.6
043N-044N 063W-062W 100yr	2	15	4	11	9	1	0	0	0	10	17	27	26.2
43.5N 62.5W 260km 100yr	7	48	19	29	32	9	1	1	0	43	55	98	28.6
43.5N 62.5W 400km 100yr	7	63	31	32	46	16	2	2	0	66	70	136	27.8
043N-044N 063W-062W 50yr	1	10	2	8	5	0	0	0	0	5	11	16	28.0
43.5N 62.5W 260km 50yr	5	30	8	22	20	2	1	1	0	24	35	59	31.1
43.5N 62.5W 400km 50yr	5	38	16	22	28	7	1	2	0	38	43	81	28.9
043N-044N 062W-061W 100yr	1	16	5	11	8	0	0	0	0	8	17	25	28.8
43.5N 61.5W 260km 100yr	6	47	21	26	29	8	1	1	0	39	53	92	28.2
43.5N 61.5W 400km 100yr	9	65	27	38	46	17	1	3	0	67	74	141	27.8
043N-044N 062W-061W 50yr	0	12	2	10	7	0	0	0	0	7	12	19	30.3
43.5N 61.5W 260km 50yr	4	29	8	21	19	3	1	1	0	24	33	57	31.2
43.5N 61.5W 400km 50yr	6	40	14	26	29	6	0	3	0	38	46	84	28.7

Cell or Centre Radius	TD	TS	G	S	S1	S2	S3	S4	S5	H	<H	All	Spd
043N-044N 061W-060W 100yr	0	15	7	8	11	1	0	0	0	12	15	27	28.8
43.5N 60.5W 260km 100yr	6	47	21	26	28	9	1	1	0	39	53	92	28.3
43.5N 60.5W 400km 100yr	8	66	30	36	53	16	0	3	0	72	74	146	28.1
043N-044N 061W-060W 50yr	0	11	4	7	7	1	0	0	0	8	11	19	31.5
43.5N 60.5W 260km 50yr	4	31	10	21	20	3	1	1	0	25	35	60	30.6
43.5N 60.5W 400km 50yr	6	41	15	26	34	4	0	3	0	41	47	88	28.7
043N-044N 060W-059W 100yr	2	12	5	7	5	2	0	0	0	7	14	21	27.8
43.5N 59.5W 260km 100yr	5	52	19	33	34	8	2	1	0	45	57	102	29.1
43.5N 59.5W 400km 100yr	9	70	31	39	48	15	0	3	0	66	79	145	28.0
043N-044N 060W-059W 50yr	2	9	3	6	2	0	0	0	0	2	11	13	31.9
43.5N 59.5W 260km 50yr	3	35	9	26	22	3	2	1	0	28	38	66	30.4
43.5N 59.5W 400km 50yr	7	42	14	28	32	5	0	3	0	40	49	89	29.0
043N-044N 059W-058W 100yr	3	13	7	6	5	2	1	1	0	9	16	25	31.7
43.5N 58.5W 260km 100yr	5	51	20	31	33	8	2	1	0	44	56	100	30.2
43.5N 58.5W 400km 100yr	9	73	32	41	50	14	3	1	0	68	82	150	27.9
043N-044N 059W-058W 50yr	3	10	5	5	3	1	1	1	0	6	13	19	35.1
43.5N 58.5W 260km 50yr	3	34	9	25	21	3	2	1	0	27	37	64	31.6
43.5N 58.5W 400km 50yr	7	44	15	29	35	5	3	1	0	44	51	95	28.8
043N-044N 058W-057W 100yr	3	14	7	7	5	2	1	1	0	9	17	26	32.0
43.5N 57.5W 260km 100yr	4	54	21	33	31	8	2	1	0	42	58	100	30.3
43.5N 57.5W 400km 100yr	9	70	29	41	54	13	3	1	0	71	79	150	28.5
043N-044N 058W-057W 50yr	3	11	4	7	4	0	1	1	0	6	14	20	33.6
43.5N 57.5W 260km 50yr	4	37	10	27	19	3	2	1	0	25	41	66	31.3
43.5N 57.5W 400km 50yr	7	45	15	30	35	6	3	1	0	45	52	97	29.3
043N-044N 057W-056W 100yr	1	11	5	6	8	1	2	1	0	12	12	24	34.9
43.5N 56.5W 260km 100yr	4	49	22	27	32	8	2	1	0	43	53	96	30.6
43.5N 56.5W 400km 100yr	6	70	31	39	52	13	3	1	0	69	76	145	29.4
043N-044N 057W-056W 50yr	1	8	2	6	5	0	2	1	0	8	9	17	36.3
43.5N 56.5W 260km 50yr	4	30	11	19	19	3	2	1	0	25	34	59	31.4
43.5N 56.5W 400km 50yr	5	46	17	29	36	6	3	1	0	46	51	97	30.0
043N-044N 056W-055W 100yr	1	14	5	9	8	1	1	0	0	10	15	25	31.5
43.5N 55.5W 260km 100yr	4	45	19	26	32	8	2	1	0	43	49	92	30.4
43.5N 55.5W 400km 100yr	7	74	31	43	47	15	3	2	0	67	81	148	29.4
043N-044N 056W-055W 50yr	1	10	2	8	5	0	1	0	0	6	11	17	32.4
43.5N 55.5W 260km 50yr	4	29	10	19	20	4	2	1	0	27	33	60	30.9
43.5N 55.5W 400km 50yr	6	50	18	32	32	6	3	1	0	42	56	98	29.9
043N-044N 055W-054W 100yr	1	17	7	10	9	0	0	0	0	9	18	27	31.6
43.5N 54.5W 260km 100yr	4	43	20	23	36	7	2	1	0	46	47	93	30.3
43.5N 54.5W 400km 100yr	8	66	28	38	48	15	3	2	0	68	74	142	29.6
043N-044N 055W-054W 50yr	1	13	4	9	5	0	0	0	0	5	14	19	32.5
43.5N 54.5W 260km 50yr	4	27	10	17	23	3	2	1	0	29	31	60	30.5
43.5N 54.5W 400km 50yr	7	44	17	27	32	7	3	1	0	43	51	94	29.9

Cell or Centre Radius	TD	TS	G	S	S1	S2	S3	S4	S5	H	<H	All	Spd
043N-044N 054W-053W 100yr	1	15	6	9	7	0	0	0	0	7	16	23	30.4
43.5N 53.5W 260km 100yr	4	45	21	24	36	8	2	1	0	47	49	96	29.3
43.5N 53.5W 400km 100yr	7	64	24	40	44	15	3	2	0	64	71	135	29.6
043N-044N 054W-053W 50yr	1	10	3	7	5	0	0	0	0	5	11	16	30.0
43.5N 53.5W 260km 50yr	4	29	13	16	23	4	1	1	0	29	33	62	29.6
43.5N 53.5W 400km 50yr	6	43	15	28	30	7	3	1	0	41	49	90	29.9
043N-044N 053W-052W 100yr	2	15	7	8	4	1	0	0	0	5	17	22	29.1
43.5N 52.5W 260km 100yr	3	45	21	24	31	9	2	1	0	43	48	91	30.1
43.5N 52.5W 400km 100yr	6	63	22	41	49	12	3	2	0	66	69	135	30.0
043N-044N 053W-052W 50yr	2	9	4	5	2	1	0	0	0	3	11	14	27.3
43.5N 52.5W 260km 50yr	3	30	12	18	22	5	2	0	0	29	33	62	30.5
43.5N 52.5W 400km 50yr	5	42	13	29	36	5	3	1	0	45	47	92	30.2
043N-044N 052W-051W 100yr	3	13	6	7	8	2	0	0	0	10	16	26	30.8
43.5N 51.5W 260km 100yr	3	42	20	22	31	8	2	0	0	41	45	86	30.1
43.5N 51.5W 400km 100yr	6	64	23	41	52	11	2	2	0	67	70	137	30.1
043N-044N 052W-051W 50yr	3	7	3	4	5	1	0	0	0	6	10	16	28.9
43.5N 51.5W 260km 50yr	3	29	12	17	22	5	1	0	0	28	32	60	30.1
43.5N 51.5W 400km 50yr	5	44	15	29	38	6	2	1	0	47	49	96	30.3
043N-044N 051W-050W 100yr	2	13	7	6	10	3	0	0	0	13	15	28	30.7
43.5N 50.5W 260km 100yr	4	41	22	19	31	7	1	0	0	39	45	84	30.0
43.5N 50.5W 400km 100yr	5	64	25	39	49	11	1	2	0	63	69	132	29.9
043N-044N 051W-050W 50yr	2	8	5	3	5	1	0	0	0	6	10	16	29.4
43.5N 50.5W 260km 50yr	4	27	13	14	22	4	0	0	0	26	31	57	29.9
43.5N 50.5W 400km 50yr	4	45	16	29	35	7	1	1	0	44	49	93	30.2
043N-044N 050W-049W 100yr	2	9	6	3	10	2	0	0	0	12	11	23	29.0
43.5N 49.5W 260km 100yr	4	46	23	23	29	8	1	0	0	38	50	88	30.6
43.5N 49.5W 400km 100yr	5	62	25	37	45	14	3	1	0	63	67	130	29.7
043N-044N 050W-049W 50yr	2	7	5	2	5	1	0	0	0	6	9	15	29.3
43.5N 49.5W 260km 50yr	4	32	15	17	22	5	0	0	0	27	36	63	31.1
43.5N 49.5W 400km 50yr	4	44	16	28	33	8	3	0	0	44	48	92	29.8
043N-044N 049W-048W 100yr	1	9	5	4	5	2	0	0	0	7	10	17	29.4
43.5N 48.5W 260km 100yr	4	42	20	22	30	7	1	0	0	38	46	84	30.2
43.5N 48.5W 400km 100yr	4	57	25	32	46	16	1	1	0	64	61	125	29.8
043N-044N 049W-048W 50yr	1	6	4	2	3	1	0	0	0	4	7	11	30.1
43.5N 48.5W 260km 50yr	4	32	15	17	21	5	0	0	0	26	36	62	30.2
43.5N 48.5W 400km 50yr	3	40	16	24	33	8	1	0	0	42	43	85	29.5
043N-044N 048W-047W 100yr	1	13	6	7	3	1	0	0	0	4	14	18	32.2
43.5N 47.5W 260km 100yr	3	40	18	22	28	7	1	0	0	36	43	79	30.2
43.5N 47.5W 400km 100yr	4	57	23	34	41	14	2	0	0	57	61	118	29.7
043N-044N 048W-047W 50yr	1	10	5	5	2	0	0	0	0	2	11	13	32.2
43.5N 47.5W 260km 50yr	3	31	14	17	19	4	1	0	0	24	34	58	30.2
43.5N 47.5W 400km 50yr	4	40	16	24	29	6	1	0	0	36	44	80	29.4

Cell or Centre Radius	TD	TS	G	S	S1	S2	S3	S4	S5	H	<H	All	Spd
043N-044N 047W-046W 100yr	1	10	4	6	5	2	0	0	0	7	11	18	33.4
43.5N 46.5W 260km 100yr	1	36	17	19	28	7	1	0	0	36	37	73	29.7
43.5N 46.5W 400km 100yr	3	57	25	32	35	15	2	0	0	52	60	112	29.5
043N-044N 047W-046W 50yr	1	9	4	5	4	2	0	0	0	6	10	16	34.4
43.5N 46.5W 260km 50yr	1	29	14	15	18	4	1	0	0	23	30	53	30.5
43.5N 46.5W 400km 50yr	3	40	17	23	25	8	1	0	0	34	43	77	29.1
043N-044N 046W-045W 100yr	1	12	6	6	6	2	0	0	0	8	13	21	35.9
43.5N 45.5W 260km 100yr	2	36	13	23	22	8	1	0	0	31	38	69	30.6
43.5N 45.5W 400km 100yr	3	54	25	29	34	17	1	0	0	52	57	109	30.0
043N-044N 046W-045W 50yr	1	11	6	5	6	2	0	0	0	8	12	20	36.2
43.5N 45.5W 260km 50yr	2	27	9	18	14	5	1	0	0	20	29	49	31.2
43.5N 45.5W 400km 50yr	3	39	17	22	25	9	1	0	0	35	42	77	29.2
044°N to 045°N													
044N-045N 070W-069W 100yr	2	7	5	2	2	0	0	0	0	2	9	11	28.0
44.5N 69.5W 260km 100yr	10	21	15	6	8	5	1	0	0	14	31	45	29.2
44.5N 69.5W 400km 100yr	15	37	22	15	15	12	2	0	0	29	52	81	26.1
044N-045N 070W-069W 50yr	1	6	4	2	1	0	0	0	0	1	7	8	28.8
44.5N 69.5W 260km 50yr	6	13	7	6	4	3	1	0	0	8	19	27	29.1
44.5N 69.5W 400km 50yr	8	22	10	12	6	7	2	0	0	15	30	45	26.6
044N-045N 069W-068W 100yr	3	7	4	3	3	0	0	0	0	3	10	13	29.7
44.5N 68.5W 260km 100yr	8	23	15	8	12	4	1	0	0	17	31	48	29.9
44.5N 68.5W 400km 100yr	16	39	21	18	21	12	2	0	0	35	55	90	26.1
044N-045N 069W-068W 50yr	2	6	3	3	1	0	0	0	0	1	8	9	30.1
44.5N 68.5W 260km 50yr	6	13	7	6	7	2	1	0	0	10	19	29	29.1
44.5N 68.5W 400km 50yr	8	24	9	15	10	6	2	0	0	18	32	50	26.7
044N-045N 068W-067W 100yr	3	8	4	4	3	0	1	0	0	4	11	15	30.5
44.5N 67.5W 260km 100yr	6	25	15	10	16	5	1	0	0	22	31	53	28.2
44.5N 67.5W 400km 100yr	15	44	25	19	29	11	3	0	0	43	59	102	26.2
044N-045N 068W-067W 50yr	2	5	1	4	1	0	1	0	0	2	7	9	29.2
44.5N 67.5W 260km 50yr	5	15	7	8	7	2	1	0	0	10	20	30	27.1
44.5N 67.5W 400km 50yr	7	27	11	16	14	6	2	0	0	22	34	56	26.7
044N-045N 067W-066W 100yr	2	8	7	1	3	3	0	0	0	6	10	16	32.4
44.5N 66.5W 260km 100yr	7	28	13	15	16	6	1	0	0	23	35	58	27.0
44.5N 66.5W 400km 100yr	13	48	24	24	34	9	3	0	0	46	61	107	26.4
044N-045N 067W-066W 50yr	1	5	4	1	1	1	0	0	0	2	6	8	27.4
44.5N 66.5W 260km 50yr	5	18	5	13	7	2	1	0	0	10	23	33	27.2
44.5N 66.5W 400km 50yr	7	30	10	20	18	4	2	0	0	24	37	61	27.1
044N-045N 066W-065W 100yr	2	7	4	3	4	3	0	0	0	7	9	16	31.6
44.5N 65.5W 260km 100yr	6	29	12	17	24	5	1	0	0	30	35	65	27.1
44.5N 65.5W 400km 100yr	10	51	26	25	40	10	2	0	0	52	61	113	26.6
044N-045N 066W-065W 50yr	1	4	3	1	2	1	0	0	0	3	5	8	27.2
44.5N 65.5W 260km 50yr	4	19	5	14	11	1	1	0	0	13	23	36	27.4
44.5N 65.5W 400km 50yr	6	31	10	21	23	5	1	0	0	29	37	66	27.2

Cell or Centre Radius	TD	TS	G	S	S1	S2	S3	S4	S5	H	<H	All	Spd
044N-045N 065W-064W 100yr	1	8	5	3	4	1	0	0	0	5	9	14	27.7
44.5N 64.5W 260km 100yr	6	39	15	24	23	6	1	0	0	30	45	75	27.6
44.5N 64.5W 400km 100yr	9	52	23	29	37	11	2	0	0	50	61	111	27.3
044N-045N 065W-064W 50yr	1	3	2	1	1	0	0	0	0	1	4	5	28.8
44.5N 64.5W 260km 50yr	3	25	6	19	11	2	1	0	0	14	28	42	28.2
44.5N 64.5W 400km 50yr	7	33	9	24	20	5	1	0	0	26	40	66	28.5
044N-045N 064W-063W 100yr	0	8	4	4	3	2	0	0	0	5	8	13	22.6
44.5N 63.5W 260km 100yr	5	39	17	22	28	7	0	0	0	35	44	79	27.3
44.5N 63.5W 400km 100yr	8	58	25	33	42	10	3	1	0	56	66	122	28.5
044N-045N 064W-063W 50yr	0	3	1	2	2	0	0	0	0	2	3	5	21.9
44.5N 63.5W 260km 50yr	3	24	8	16	16	2	0	0	0	18	27	45	28.1
44.5N 63.5W 400km 50yr	6	36	10	26	25	4	2	1	0	32	42	74	30.6
044N-045N 063W-062W 100yr	0	7	2	5	9	2	0	0	0	11	7	18	23.2
44.5N 62.5W 260km 100yr	5	41	19	22	30	7	0	0	0	37	46	83	27.6
44.5N 62.5W 400km 100yr	8	63	29	34	38	12	2	1	0	53	71	124	28.6
044N-045N 063W-062W 50yr	0	4	1	3	5	0	0	0	0	5	4	9	23.6
44.5N 62.5W 260km 50yr	3	26	9	17	17	2	0	0	0	19	29	48	28.8
44.5N 62.5W 400km 50yr	5	38	12	26	23	6	1	1	0	31	43	74	30.7
044N-045N 062W-061W 100yr	0	11	2	9	9	0	0	0	0	9	11	20	27.1
44.5N 61.5W 260km 100yr	7	41	16	25	26	9	0	0	0	35	48	83	28.1
44.5N 61.5W 400km 100yr	8	66	30	36	37	13	2	1	0	53	74	127	28.5
044N-045N 062W-061W 50yr	0	9	1	8	5	0	0	0	0	5	9	14	28.2
44.5N 61.5W 260km 50yr	5	25	7	18	16	2	0	0	0	18	30	48	29.9
44.5N 61.5W 400km 50yr	5	42	14	28	22	5	2	1	0	30	47	77	30.3
044N-045N 061W-060W 100yr	0	15	4	11	9	0	0	0	0	9	15	24	31.1
44.5N 60.5W 260km 100yr	7	43	17	26	27	6	1	1	0	35	50	85	28.2
44.5N 60.5W 400km 100yr	7	66	29	37	43	15	2	1	0	61	73	134	29.0
044N-045N 061W-060W 50yr	0	12	2	10	7	0	0	0	0	7	12	19	31.7
44.5N 60.5W 260km 50yr	5	26	7	19	18	2	1	1	0	22	31	53	30.7
44.5N 60.5W 400km 50yr	5	43	14	29	25	5	2	1	0	33	48	81	30.0
044N-045N 060W-059W 100yr	1	12	4	8	8	0	0	0	0	8	13	21	31.4
44.5N 59.5W 260km 100yr	6	48	18	30	29	5	1	1	0	36	54	90	29.5
44.5N 59.5W 400km 100yr	7	68	28	40	44	14	2	1	0	61	75	136	28.8
044N-045N 060W-059W 50yr	1	9	2	7	3	0	0	0	0	3	10	13	32.8
44.5N 59.5W 260km 50yr	4	31	7	24	18	2	1	1	0	22	35	57	32.1
44.5N 59.5W 400km 50yr	5	43	13	30	27	4	2	1	0	34	48	82	29.7
044N-045N 059W-058W 100yr	1	9	4	5	8	1	0	0	0	9	10	19	29.7
44.5N 58.5W 260km 100yr	5	48	19	29	30	8	2	1	0	41	53	94	30.3
44.5N 58.5W 400km 100yr	9	70	29	41	44	12	2	1	0	59	79	138	28.9
044N-045N 059W-058W 50yr	1	6	3	3	2	1	0	0	0	3	7	10	31.2
44.5N 58.5W 260km 50yr	4	34	10	24	19	3	2	1	0	25	38	63	31.7
44.5N 58.5W 400km 50yr	7	43	12	31	29	3	2	1	0	35	50	85	29.8

Cell or Centre Radius	TD	TS	G	S	S1	S2	S3	S4	S5	H	<H	All	Spd
044N-045N 058W-057W 100yr	2	11	6	5	6	2	0	0	0	8	13	21	29.0
44.5N 57.5W 260km 100yr	4	49	19	30	29	7	2	1	0	39	53	92	30.9
44.5N 57.5W 400km 100yr	8	74	33	41	50	10	2	1	0	63	82	145	29.2
044N-045N 058W-057W 50yr	2	9	5	4	1	1	0	0	0	2	11	13	30.0
44.5N 57.5W 260km 50yr	3	36	11	25	18	2	2	1	0	23	39	62	32.2
44.5N 57.5W 400km 50yr	6	44	14	30	33	5	2	1	0	41	50	91	30.2
044N-045N 057W-056W 100yr	2	10	4	6	9	2	0	1	0	12	12	24	30.9
44.5N 56.5W 260km 100yr	3	51	20	31	24	6	2	1	0	33	54	87	31.3
44.5N 56.5W 400km 100yr	6	70	29	41	50	10	2	1	0	63	76	139	29.5
044N-045N 057W-056W 50yr	2	8	2	6	4	1	0	1	0	6	10	16	32.6
44.5N 56.5W 260km 50yr	2	38	13	25	12	2	2	1	0	17	40	57	32.3
44.5N 56.5W 400km 50yr	5	44	13	31	34	5	2	1	0	42	49	91	30.1
044N-045N 056W-055W 100yr	1	11	4	7	9	1	1	1	0	12	12	24	31.8
44.5N 55.5W 260km 100yr	4	53	23	30	27	5	2	1	0	35	57	92	31.2
44.5N 55.5W 400km 100yr	6	68	28	40	49	10	3	1	0	63	74	137	29.6
044N-045N 056W-055W 50yr	1	9	2	7	3	1	1	1	0	6	10	16	33.7
44.5N 55.5W 260km 50yr	3	37	13	24	15	2	2	1	0	20	40	60	31.8
44.5N 55.5W 400km 50yr	5	44	14	30	32	4	3	1	0	40	49	89	30.1
044N-045N 055W-054W 100yr	1	15	7	8	8	1	1	1	0	11	16	27	33.5
44.5N 54.5W 260km 100yr	4	47	20	27	26	4	2	1	0	33	51	84	30.5
44.5N 54.5W 400km 100yr	5	65	28	37	45	11	4	1	0	61	70	131	29.8
044N-045N 055W-054W 50yr	1	10	3	7	4	1	1	1	0	7	11	18	36.7
44.5N 54.5W 260km 50yr	3	30	11	19	15	2	2	1	0	20	33	53	30.8
44.5N 54.5W 400km 50yr	4	43	16	27	29	4	3	1	0	37	47	84	30.1
044N-045N 054W-053W 100yr	1	12	8	4	8	0	1	0	0	9	13	22	32.8
44.5N 53.5W 260km 100yr	5	47	20	27	26	6	1	1	0	34	52	86	30.9
44.5N 53.5W 400km 100yr	6	64	27	37	46	12	3	2	0	63	70	133	30.2
044N-045N 054W-053W 50yr	1	8	4	4	6	0	1	0	0	7	9	16	34.5
44.5N 53.5W 260km 50yr	4	30	9	21	17	3	1	1	0	22	34	56	31.0
44.5N 53.5W 400km 50yr	5	42	15	27	31	5	3	1	0	40	47	87	30.4
044N-045N 053W-052W 100yr	1	11	7	4	8	1	0	0	0	9	12	21	33.8
44.5N 52.5W 260km 100yr	5	45	20	25	30	6	1	1	0	38	50	88	30.6
44.5N 52.5W 400km 100yr	5	62	24	38	49	9	2	2	0	62	67	129	30.5
044N-045N 053W-052W 50yr	1	6	3	3	6	1	0	0	0	7	7	14	36.6
44.5N 52.5W 260km 50yr	4	31	10	21	18	3	1	1	0	23	35	58	30.9
44.5N 52.5W 400km 50yr	4	40	14	26	34	4	2	1	0	41	44	85	30.8
044N-045N 052W-051W 100yr	1	11	8	3	6	0	0	0	0	6	12	18	30.3
44.5N 51.5W 260km 100yr	4	40	20	20	30	6	3	0	0	39	44	83	30.7
44.5N 51.5W 400km 100yr	6	65	28	37	43	10	1	2	0	56	71	127	30.4
044N-045N 052W-051W 50yr	1	6	4	2	6	0	0	0	0	6	7	13	32.0
44.5N 51.5W 260km 50yr	3	27	11	16	20	3	2	0	0	25	30	55	31.2
44.5N 51.5W 400km 50yr	5	43	15	28	30	6	1	1	0	38	48	86	30.6

Cell or Centre Radius	TD	TS	G	S	S1	S2	S3	S4	S5	H	<H	All	Spd
044N-045N 051W-050W 100yr	2	12	6	6	6	0	0	0	0	6	14	20	30.1
44.5N 50.5W 260km 100yr	4	37	19	18	30	6	3	0	0	39	41	80	31.0
44.5N 50.5W 400km 100yr	5	67	27	40	45	10	1	2	0	58	72	130	30.5
044N-045N 051W-050W 50yr	2	9	5	4	5	0	0	0	0	5	11	16	29.1
44.5N 50.5W 260km 50yr	3	25	10	15	20	4	2	0	0	26	28	54	31.4
44.5N 50.5W 400km 50yr	4	47	16	31	31	7	1	1	0	40	51	91	30.9
044N-045N 050W-049W 100yr	2	8	4	4	7	0	0	0	0	7	10	17	29.9
44.5N 49.5W 260km 100yr	3	33	17	16	30	5	1	0	0	36	36	72	31.4
44.5N 49.5W 400km 100yr	5	65	28	37	43	11	3	0	0	57	70	127	30.2
044N-045N 050W-049W 50yr	2	6	4	2	5	0	0	0	0	5	8	13	29.0
44.5N 49.5W 260km 50yr	3	21	9	12	20	3	0	0	0	23	24	47	32.0
44.5N 49.5W 400km 50yr	4	45	17	28	31	7	2	0	0	40	49	89	31.0
044N-045N 049W-048W 100yr	1	6	4	2	8	1	0	0	0	9	7	16	31.2
44.5N 48.5W 260km 100yr	3	35	15	20	31	7	0	0	0	38	38	76	31.6
44.5N 48.5W 400km 100yr	5	64	29	35	40	12	3	0	0	55	69	124	30.7
044N-045N 049W-048W 50yr	1	4	3	1	5	1	0	0	0	6	5	11	32.5
44.5N 48.5W 260km 50yr	3	25	9	16	21	4	0	0	0	25	28	53	32.0
44.5N 48.5W 400km 50yr	4	45	18	27	28	8	2	0	0	38	49	87	30.6
044N-045N 048W-047W 100yr	1	7	4	3	6	2	0	0	0	8	8	16	31.6
44.5N 47.5W 260km 100yr	2	41	18	23	29	7	0	0	0	36	43	79	31.3
44.5N 47.5W 400km 100yr	5	58	27	31	38	12	3	0	0	53	63	116	30.3
044N-045N 048W-047W 50yr	1	5	2	3	4	1	0	0	0	5	6	11	32.4
44.5N 47.5W 260km 50yr	2	29	11	18	21	4	0	0	0	25	31	56	32.1
44.5N 47.5W 400km 50yr	4	41	17	24	27	7	2	0	0	36	45	81	30.8
044N-045N 047W-046W 100yr	1	8	3	5	6	2	0	0	0	8	9	17	28.0
44.5N 46.5W 260km 100yr	1	35	14	21	26	5	0	0	0	31	36	67	32.2
44.5N 46.5W 400km 100yr	4	57	25	32	38	14	1	0	0	53	61	114	31.2
044N-045N 047W-046W 50yr	1	7	2	5	3	1	0	0	0	4	8	12	29.0
44.5N 46.5W 260km 50yr	1	26	9	17	18	4	0	0	0	22	27	49	32.5
44.5N 46.5W 400km 50yr	3	41	16	25	26	7	1	0	0	34	44	78	31.4
044N-045N 046W-045W 100yr	1	9	3	6	5	3	0	0	0	8	10	18	31.3
44.5N 45.5W 260km 100yr	2	34	13	21	24	4	1	0	0	29	36	65	31.3
44.5N 45.5W 400km 100yr	3	57	24	33	37	14	1	0	0	52	60	112	30.8
044N-045N 046W-045W 50yr	1	7	2	5	3	2	0	0	0	5	8	13	33.2
44.5N 45.5W 260km 50yr	2	26	9	17	16	3	1	0	0	20	28	48	31.3
44.5N 45.5W 400km 50yr	2	42	16	26	24	7	1	0	0	32	44	76	30.1

045°N to 046°N

Cell or Centre Radius	TD	TS	G	S	S1	S2	S3	S4	S5	H	<H	All	Spd
045N-046N 070W-069W 100yr	1	5	5	0	2	0	0	0	0	2	6	8	29.9
45.5N 69.5W 260km 100yr	10	18	11	7	9	1	1	0	0	11	28	39	29.3
45.5N 69.5W 400km 100yr	13	28	18	10	13	7	1	0	0	21	41	62	27.8
045N-046N 070W-069W 50yr	1	3	3	0	2	0	0	0	0	2	4	6	28.1
45.5N 69.5W 260km 50yr	5	12	5	7	5	1	1	0	0	7	17	24	29.7
45.5N 69.5W 400km 50yr	7	16	8	8	6	4	1	0	0	11	23	34	28.3

Cell or Centre Radius	TD	TS	G	S	S1	S2	S3	S4	S5	H	<H	All	Spd
045N-046N 069W-068W 100yr	0	5	3	2	0	0	0	0	0	0	5	5	32.3
45.5N 68.5W 260km 100yr	11	20	12	8	9	4	1	0	0	14	31	45	30.0
45.5N 68.5W 400km 100yr	14	28	17	11	17	7	1	0	0	25	42	67	27.8
045N-046N 069W-068W 50yr	0	4	3	1	0	0	0	0	0	0	4	4	33.3
45.5N 68.5W 260km 50yr	5	14	7	7	5	2	1	0	0	8	19	27	29.7
45.5N 68.5W 400km 50yr	7	16	7	9	7	4	1	0	0	12	23	35	28.5
045N-046N 068W-067W 100yr	0	8	4	4	1	1	0	0	0	2	8	10	33.3
45.5N 67.5W 260km 100yr	7	23	14	9	11	4	1	0	0	16	30	46	29.9
45.5N 67.5W 400km 100yr	14	36	18	18	22	7	1	0	0	30	50	80	27.6
045N-046N 068W-067W 50yr	0	6	3	3	1	1	0	0	0	2	6	8	34.9
45.5N 67.5W 260km 50yr	5	14	7	7	6	2	1	0	0	9	19	28	29.2
45.5N 67.5W 400km 50yr	7	23	8	15	11	3	1	0	0	15	30	45	28.3
045N-046N 067W-066W 100yr	0	10	6	4	2	1	0	0	0	3	10	13	31.2
45.5N 66.5W 260km 100yr	5	24	14	10	13	3	1	0	0	17	29	46	28.9
45.5N 66.5W 400km 100yr	14	39	18	21	30	6	1	0	0	37	53	90	26.8
045N-046N 067W-066W 50yr	0	5	2	3	2	1	0	0	0	3	5	8	33.0
45.5N 66.5W 260km 50yr	4	14	6	8	5	1	1	0	0	7	18	25	27.8
45.5N 66.5W 400km 50yr	7	24	8	16	15	2	1	0	0	18	31	49	27.1
045N-046N 066W-065W 100yr	2	8	4	4	2	2	0	0	0	4	10	14	32.1
45.5N 65.5W 260km 100yr	3	25	13	12	12	5	1	0	0	18	28	46	28.6
45.5N 65.5W 400km 100yr	14	44	19	25	29	8	1	0	0	38	58	96	27.1
045N-046N 066W-065W 50yr	1	4	2	2	1	1	0	0	0	2	5	7	29.7
45.5N 65.5W 260km 50yr	2	14	5	9	5	1	1	0	0	7	16	23	28.2
45.5N 65.5W 400km 50yr	7	27	9	18	15	4	1	0	0	20	34	54	28.0
045N-046N 065W-064W 100yr	2	9	6	3	1	3	0	0	0	4	11	15	33.5
45.5N 64.5W 260km 100yr	3	31	14	17	20	6	0	0	0	26	34	60	27.8
45.5N 64.5W 400km 100yr	12	48	19	29	35	8	1	0	0	44	60	104	28.1
045N-046N 065W-064W 50yr	1	6	4	2	0	1	0	0	0	1	7	8	30.0
45.5N 64.5W 260km 50yr	2	19	7	12	9	2	0	0	0	11	21	32	28.0
45.5N 64.5W 400km 50yr	6	31	8	23	20	3	1	0	0	24	37	61	29.1
045N-046N 064W-063W 100yr	2	10	6	4	1	2	0	0	0	3	12	15	33.9
45.5N 63.5W 260km 100yr	3	35	16	19	24	5	0	0	0	29	38	67	28.4
45.5N 63.5W 400km 100yr	9	52	23	29	35	7	1	0	0	43	61	104	27.3
045N-046N 064W-063W 50yr	1	4	2	2	0	0	0	0	0	0	5	5	30.6
45.5N 63.5W 260km 50yr	2	20	7	13	14	1	0	0	0	15	22	37	28.8
45.5N 63.5W 400km 50yr	4	32	10	22	20	2	1	0	0	23	36	59	28.7
045N-046N 063W-062W 100yr	2	9	4	5	3	0	0	0	0	3	11	14	24.9
45.5N 62.5W 260km 100yr	4	41	17	24	23	5	0	0	0	28	45	73	28.2
45.5N 62.5W 400km 100yr	9	56	23	33	34	11	0	0	0	45	65	110	28.4
045N-046N 063W-062W 50yr	1	3	1	2	1	0	0	0	0	1	4	5	25.2
45.5N 62.5W 260km 50yr	2	26	9	17	14	1	0	0	0	15	28	43	29.0
45.5N 62.5W 400km 50yr	5	36	11	25	20	4	0	0	0	24	41	65	30.2

Cell or Centre Radius	TD	TS	G	S	S1	S2	S3	S4	S5	H	<H	All	Spd
045N-046N 062W-061W 100yr	2	11	4	7	8	0	0	0	0	8	13	21	25.5
45.5N 61.5W 260km 100yr	4	42	20	22	24	5	0	0	0	29	46	75	28.1
45.5N 61.5W 400km 100yr	9	60	26	34	37	10	1	1	0	49	69	118	28.5
045N-046N 062W-061W 50yr	1	4	1	3	5	0	0	0	0	5	5	10	24.7
45.5N 61.5W 260km 50yr	2	28	11	17	14	1	0	0	0	15	30	45	28.7
45.5N 61.5W 400km 50yr	5	36	10	26	22	3	1	1	0	27	41	68	30.4
045N-046N 061W-060W 100yr	1	11	3	8	11	0	0	0	0	11	12	23	27.6
45.5N 60.5W 260km 100yr	3	45	20	25	24	5	0	0	0	29	48	77	27.9
45.5N 60.5W 400km 100yr	9	61	27	34	36	11	1	1	0	49	70	119	29.3
045N-046N 061W-060W 50yr	0	9	3	6	8	0	0	0	0	8	9	17	26.6
45.5N 60.5W 260km 50yr	1	29	10	19	14	1	0	0	0	15	30	45	29.4
45.5N 60.5W 400km 50yr	5	38	12	26	22	3	1	1	0	27	43	70	31.5
045N-046N 060W-059W 100yr	1	14	5	9	4	0	0	0	0	4	15	19	29.7
45.5N 59.5W 260km 100yr	3	46	19	27	30	3	0	0	0	33	49	82	28.3
45.5N 59.5W 400km 100yr	9	63	29	34	35	13	2	1	0	51	72	123	29.4
045N-046N 060W-059W 50yr	0	13	4	9	4	0	0	0	0	4	13	17	29.3
45.5N 59.5W 260km 50yr	2	30	9	21	16	1	0	0	0	17	32	49	29.5
45.5N 59.5W 400km 50yr	5	42	15	27	22	4	2	1	0	29	47	76	31.0
045N-046N 059W-058W 100yr	1	13	6	7	5	1	0	0	0	6	14	20	31.6
45.5N 58.5W 260km 100yr	5	44	16	28	28	2	1	1	0	32	49	81	29.6
45.5N 58.5W 400km 100yr	6	69	28	41	37	12	2	1	0	52	75	127	29.6
045N-046N 059W-058W 50yr	0	10	4	6	3	1	0	0	0	4	10	14	32.0
45.5N 58.5W 260km 50yr	3	31	8	23	16	1	1	1	0	19	34	53	30.9
45.5N 58.5W 400km 50yr	4	45	13	32	23	3	2	1	0	29	49	78	31.4
045N-046N 058W-057W 100yr	1	11	4	7	6	1	0	0	0	7	12	19	33.2
45.5N 57.5W 260km 100yr	5	43	16	27	26	3	2	1	0	32	48	80	30.1
45.5N 57.5W 400km 100yr	6	72	28	44	41	10	2	1	0	54	78	132	29.7
045N-046N 058W-057W 50yr	0	7	2	5	2	1	0	0	0	3	7	10	33.1
45.5N 57.5W 260km 50yr	4	32	10	22	14	1	2	1	0	18	36	54	31.3
45.5N 57.5W 400km 50yr	4	46	12	34	24	4	2	1	0	31	50	81	31.3
045N-046N 057W-056W 100yr	1	7	1	6	5	0	0	0	0	5	8	13	34.1
45.5N 56.5W 260km 100yr	3	44	18	26	22	3	2	1	0	28	47	75	31.2
45.5N 56.5W 400km 100yr	7	76	32	44	41	8	2	1	0	52	83	135	29.4
045N-046N 057W-056W 50yr	1	5	1	4	2	0	0	0	0	2	6	8	35.4
45.5N 56.5W 260km 50yr	2	33	11	22	10	1	2	1	0	14	35	49	32.6
45.5N 56.5W 400km 50yr	5	49	14	35	25	3	2	1	0	31	54	85	30.3
045N-046N 056W-055W 100yr	1	9	2	7	7	0	0	1	0	8	10	18	32.8
45.5N 55.5W 260km 100yr	3	42	18	24	25	4	2	1	0	32	45	77	31.2
45.5N 55.5W 400km 100yr	5	73	35	38	43	8	2	1	0	54	78	132	29.7
045N-046N 056W-055W 50yr	1	6	1	5	3	0	0	1	0	4	7	11	35.6
45.5N 55.5W 260km 50yr	2	31	10	21	13	2	2	1	0	18	33	51	32.5
45.5N 55.5W 400km 50yr	4	47	18	29	27	4	2	1	0	34	51	85	30.5

Cell or Centre Radius	TD	TS	G	S	S1	S2	S3	S4	S5	H	<H	All	Spd
045N-046N 055W-054W 100yr	0	10	3	7	8	1	0	1	0	10	10	20	32.2
45.5N 54.5W 260km 100yr	3	41	17	24	22	5	1	1	0	29	44	73	31.4
45.5N 54.5W 400km 100yr	5	69	31	38	40	7	2	1	0	50	74	124	30.4
045N-046N 055W-054W 50yr	0	7	1	6	3	1	0	1	0	5	7	12	36.7
45.5N 54.5W 260km 50yr	2	28	8	20	12	3	1	1	0	17	30	47	32.4
45.5N 54.5W 400km 50yr	4	45	16	29	23	3	2	1	0	29	49	78	30.6
045N-046N 054W-053W 100yr	0	10	5	5	4	1	2	0	0	7	10	17	32.3
45.5N 53.5W 260km 100yr	4	43	19	24	26	3	1	1	0	31	47	78	31.2
45.5N 53.5W 400km 100yr	6	67	31	36	39	8	2	1	0	50	73	123	30.2
045N-046N 054W-053W 50yr	0	8	4	4	2	1	2	0	0	5	8	13	34.0
45.5N 53.5W 260km 50yr	3	31	10	21	15	2	1	1	0	19	34	53	31.8
45.5N 53.5W 400km 50yr	4	44	17	27	24	3	2	1	0	30	48	78	30.5
045N-046N 053W-052W 100yr	0	8	3	5	5	3	1	0	0	9	8	17	34.5
45.5N 52.5W 260km 100yr	5	40	18	22	24	3	1	1	0	29	45	74	31.8
45.5N 52.5W 400km 100yr	5	65	30	35	39	9	2	1	0	51	70	121	30.6
045N-046N 053W-052W 50yr	0	7	2	5	2	3	1	0	0	6	7	13	35.0
45.5N 52.5W 260km 50yr	4	26	9	17	14	2	1	1	0	18	30	48	32.1
45.5N 52.5W 400km 50yr	4	42	15	27	25	4	1	1	0	31	46	77	31.0
045N-046N 052W-051W 100yr	0	9	6	3	7	1	0	0	0	8	9	17	32.1
45.5N 51.5W 260km 100yr	5	41	22	19	28	4	2	0	0	34	46	80	31.2
45.5N 51.5W 400km 100yr	5	63	26	37	37	9	2	1	0	49	68	117	30.6
045N-046N 052W-051W 50yr	0	4	2	2	4	1	0	0	0	5	4	9	36.3
45.5N 51.5W 260km 50yr	3	26	12	14	16	3	2	0	0	21	29	50	31.8
45.5N 51.5W 400km 50yr	4	43	13	30	24	5	1	1	0	31	47	78	31.1
045N-046N 051W-050W 100yr	0	12	5	7	8	0	0	0	0	8	12	20	30.8
45.5N 50.5W 260km 100yr	4	40	21	19	26	6	2	0	0	34	44	78	31.8
45.5N 50.5W 400km 100yr	5	59	26	33	40	9	2	1	0	52	64	116	30.6
045N-046N 051W-050W 50yr	0	7	1	6	4	0	0	0	0	4	7	11	31.0
45.5N 50.5W 260km 50yr	3	25	11	14	17	3	2	0	0	22	28	50	32.2
45.5N 50.5W 400km 50yr	4	39	12	27	26	6	1	1	0	34	43	77	31.4
045N-046N 050W-049W 100yr	0	12	7	5	5	0	0	0	0	5	12	17	30.5
45.5N 49.5W 260km 100yr	4	35	18	17	25	7	1	0	0	33	39	72	31.6
45.5N 49.5W 400km 100yr	4	61	28	33	40	9	3	0	0	52	65	117	31.3
045N-046N 050W-049W 50yr	0	7	3	4	3	0	0	0	0	3	7	10	32.2
45.5N 49.5W 260km 50yr	3	23	11	12	16	4	1	0	0	21	26	47	31.1
45.5N 49.5W 400km 50yr	3	41	15	26	26	7	2	0	0	35	44	79	32.5
045N-046N 049W-048W 100yr	0	8	5	3	7	0	0	0	0	7	8	15	30.8
45.5N 48.5W 260km 100yr	3	35	16	19	24	5	1	0	0	30	38	68	30.9
45.5N 48.5W 400km 100yr	4	62	31	31	41	8	3	0	0	52	66	118	31.4
045N-046N 049W-048W 50yr	0	5	2	3	4	0	0	0	0	4	5	9	29.6
45.5N 48.5W 260km 50yr	2	24	9	15	15	3	1	0	0	19	26	45	31.3
45.5N 48.5W 400km 50yr	3	42	17	25	28	6	2	0	0	36	45	81	32.3

Cell or Centre Radius	TD	TS	G	S	S1	S2	S3	S4	S5	H	<H	All	Spd
045N-046N 048W-047W 100yr	0	7	3	4	5	0	0	0	0	5	7	12	31.1
45.5N 47.5W 260km 100yr	3	30	12	18	24	3	0	0	0	27	33	60	30.8
45.5N 47.5W 400km 100yr	5	58	27	31	38	9	2	0	0	49	63	112	31.7
045N-046N 048W-047W 50yr	0	5	1	4	2	0	0	0	0	2	5	7	26.8
45.5N 47.5W 260km 50yr	2	20	7	13	15	2	0	0	0	17	22	39	31.6
45.5N 47.5W 400km 50yr	4	41	17	24	26	6	2	0	0	34	45	79	31.7
045N-046N 047W-046W 100yr	0	6	2	4	6	0	0	0	0	6	6	12	27.0
45.5N 46.5W 260km 100yr	2	30	12	18	26	4	0	0	0	30	32	62	31.5
45.5N 46.5W 400km 100yr	4	54	23	31	37	10	2	0	0	49	58	107	31.8
045N-046N 047W-046W 50yr	0	5	1	4	3	0	0	0	0	3	5	8	27.6
45.5N 46.5W 260km 50yr	1	21	7	14	17	3	0	0	0	20	22	42	32.2
45.5N 46.5W 400km 50yr	3	36	13	23	26	6	2	0	0	34	39	73	31.6
045N-046N 046W-045W 100yr	0	9	2	7	4	2	0	0	0	6	9	15	27.2
45.5N 45.5W 260km 100yr	1	32	15	17	20	4	0	0	0	24	33	57	32.4
45.5N 45.5W 400km 100yr	4	51	20	31	40	8	1	0	0	49	55	104	31.7
045N-046N 046W-045W 50yr	0	6	1	5	2	1	0	0	0	3	6	9	30.0
45.5N 45.5W 260km 50yr	1	25	10	15	14	3	0	0	0	17	26	43	33.3
45.5N 45.5W 400km 50yr	3	36	12	24	26	6	1	0	0	33	39	72	31.7

046°N to 047°N

046N-047N 070W-069W 100yr	4	4	3	1	1	0	0	0	0	1	8	9	32.5
46.5N 69.5W 260km 100yr	9	16	13	3	5	1	0	0	0	6	25	31	30.1
46.5N 69.5W 400km 100yr	11	24	15	9	9	5	1	0	0	15	35	50	29.2
046N-047N 070W-069W 50yr	3	3	2	1	1	0	0	0	0	1	6	7	33.5
46.5N 69.5W 260km 50yr	3	12	9	3	4	1	0	0	0	5	15	20	31.9
46.5N 69.5W 400km 50yr	6	15	7	8	4	3	1	0	0	8	21	29	30.0
046N-047N 069W-068W 100yr	1	3	2	1	1	0	0	0	0	1	4	5	31.2
46.5N 68.5W 260km 100yr	9	19	13	6	8	1	0	0	0	9	28	37	29.4
46.5N 68.5W 400km 100yr	12	24	15	9	14	4	1	0	0	19	36	55	28.9
046N-047N 069W-068W 50yr	1	2	1	1	1	0	0	0	0	1	3	4	27.6
46.5N 68.5W 260km 50yr	3	12	7	5	5	1	0	0	0	6	15	21	32.0
46.5N 68.5W 400km 50yr	6	14	7	7	8	2	1	0	0	11	20	31	29.4
046N-047N 068W-067W 100yr	0	5	3	2	0	0	0	0	0	0	5	5	31.2
46.5N 67.5W 260km 100yr	10	20	13	7	7	3	0	0	0	10	30	40	31.1
46.5N 67.5W 400km 100yr	12	26	16	10	17	4	1	0	0	22	38	60	28.6
046N-047N 068W-067W 50yr	0	3	2	1	0	0	0	0	0	0	3	3	27.5
46.5N 67.5W 260km 50yr	4	12	6	6	4	2	0	0	0	6	16	22	32.3
46.5N 67.5W 400km 50yr	6	16	8	8	8	2	1	0	0	11	22	33	28.8
046N-047N 067W-066W 100yr	0	8	4	4	1	1	0	0	0	2	8	10	33.5
46.5N 66.5W 260km 100yr	8	26	15	11	6	4	0	0	0	10	34	44	31.5
46.5N 66.5W 400km 100yr	12	30	16	14	20	6	1	0	0	27	42	69	28.1
046N-047N 067W-066W 50yr	0	5	2	3	1	1	0	0	0	2	5	7	35.3
46.5N 66.5W 260km 50yr	3	16	9	7	3	2	0	0	0	5	19	24	32.4
46.5N 66.5W 400km 50yr	6	18	8	10	11	2	1	0	0	14	24	38	28.8

Cell or Centre Radius	TD	TS	G	S	S1	S2	S3	S4	S5	H	<H	All	Spd
046N-047N 066W-065W 100yr	0	11	7	4	2	0	0	0	0	2	11	13	28.4
46.5N 65.5W 260km 100yr	6	29	15	14	7	4	0	0	0	11	35	46	31.9
46.5N 65.5W 400km 100yr	12	37	18	19	25	5	1	0	0	31	49	80	28.0
046N-047N 066W-065W 50yr	0	5	2	3	2	0	0	0	0	2	5	7	33.7
46.5N 65.5W 260km 50yr	2	17	7	10	2	2	0	0	0	4	19	23	32.5
46.5N 65.5W 400km 50yr	6	24	9	15	12	1	1	0	0	14	30	44	28.5
046N-047N 065W-064W 100yr	0	11	8	3	0	1	0	0	0	1	11	12	27.0
46.5N 64.5W 260km 100yr	4	28	14	14	10	5	0	0	0	15	32	47	28.9
46.5N 64.5W 400km 100yr	10	42	18	24	28	5	1	0	0	34	52	86	29.1
046N-047N 065W-064W 50yr	0	8	5	3	0	1	0	0	0	1	8	9	29.6
46.5N 64.5W 260km 50yr	1	14	6	8	5	2	0	0	0	7	15	22	29.3
46.5N 64.5W 400km 50yr	5	28	9	19	15	1	1	0	0	17	33	50	29.9
046N-047N 064W-063W 100yr	0	10	7	3	0	3	0	0	0	3	10	13	30.7
46.5N 63.5W 260km 100yr	4	32	13	19	15	5	0	0	0	20	36	56	28.1
46.5N 63.5W 400km 100yr	9	48	22	26	29	6	0	0	0	35	57	92	29.2
046N-047N 064W-063W 50yr	0	8	5	3	0	1	0	0	0	1	8	9	27.4
46.5N 63.5W 260km 50yr	1	16	5	11	8	2	0	0	0	10	17	27	28.5
46.5N 63.5W 400km 50yr	3	30	10	20	17	2	0	0	0	19	33	52	30.2
046N-047N 063W-062W 100yr	0	12	7	5	2	1	0	0	0	3	12	15	27.9
46.5N 62.5W 260km 100yr	4	34	15	19	18	4	0	0	0	22	38	60	28.4
46.5N 62.5W 400km 100yr	7	49	23	26	32	7	0	0	0	39	56	95	28.7
046N-047N 063W-062W 50yr	0	8	4	4	0	0	0	0	0	0	8	8	24.9
46.5N 62.5W 260km 50yr	1	20	7	13	11	1	0	0	0	12	21	33	28.8
46.5N 62.5W 400km 50yr	2	31	11	20	17	3	0	0	0	20	33	53	29.5
046N-047N 062W-061W 100yr	1	11	8	3	3	1	0	0	0	4	12	16	28.9
46.5N 61.5W 260km 100yr	4	40	18	22	19	4	0	0	0	23	44	67	29.0
46.5N 61.5W 400km 100yr	8	53	22	31	32	8	0	0	0	40	61	101	28.6
046N-047N 062W-061W 50yr	1	3	2	1	1	0	0	0	0	1	4	5	31.8
46.5N 61.5W 260km 50yr	1	26	10	16	12	1	0	0	0	13	27	40	29.2
46.5N 61.5W 400km 50yr	3	33	11	22	17	4	0	0	0	21	36	57	30.2
046N-047N 061W-060W 100yr	2	9	3	6	8	0	0	0	0	8	11	19	27.2
46.5N 60.5W 260km 100yr	3	42	19	23	20	3	0	0	0	23	45	68	29.1
46.5N 60.5W 400km 100yr	7	55	21	34	32	9	0	1	0	42	62	104	28.4
046N-047N 061W-060W 50yr	1	3	0	3	5	0	0	0	0	5	4	9	26.7
46.5N 60.5W 260km 50yr	1	29	12	17	12	1	0	0	0	13	30	43	29.9
46.5N 60.5W 400km 50yr	3	36	10	26	19	3	0	1	0	23	39	62	29.9
046N-047N 060W-059W 100yr	1	11	2	9	6	0	0	0	0	6	12	18	28.6
46.5N 59.5W 260km 100yr	3	39	16	23	24	2	0	0	0	26	42	68	29.0
46.5N 59.5W 400km 100yr	6	61	27	34	31	9	1	1	0	42	67	109	29.4
046N-047N 060W-059W 50yr	1	8	2	6	4	0	0	0	0	4	9	13	28.9
46.5N 59.5W 260km 50yr	1	25	9	16	12	1	0	0	0	13	26	39	29.7
46.5N 59.5W 400km 50yr	3	40	13	27	18	3	1	1	0	23	43	66	30.9

Cell or Centre Radius	TD	TS	G	S	S1	S2	S3	S4	S5	H	<H	All	Spd
046N-047N 059W-058W 100yr	0	8	3	5	3	0	0	0	0	3	8	11	28.8
46.5N 58.5W 260km 100yr	5	36	14	22	25	3	0	0	0	28	41	69	29.6
46.5N 58.5W 400km 100yr	5	65	31	34	31	7	2	1	0	41	70	111	29.2
046N-047N 059W-058W 50yr	0	7	3	4	1	0	0	0	0	1	7	8	30.1
46.5N 58.5W 260km 50yr	2	23	6	17	13	1	0	0	0	14	25	39	30.6
46.5N 58.5W 400km 50yr	3	43	16	27	18	1	2	1	0	22	46	68	30.6
046N-047N 058W-057W 100yr	1	13	6	7	3	1	0	0	0	4	14	18	31.5
46.5N 57.5W 260km 100yr	4	42	18	24	27	2	0	1	0	30	46	76	30.0
46.5N 57.5W 400km 100yr	5	67	29	38	34	6	2	1	0	43	72	115	29.9
046N-047N 058W-057W 50yr	0	10	4	6	1	1	0	0	0	2	10	12	32.3
46.5N 57.5W 260km 50yr	2	28	9	19	12	1	0	1	0	14	30	44	31.3
46.5N 57.5W 400km 50yr	3	44	14	30	18	2	2	1	0	23	47	70	31.3
046N-047N 057W-056W 100yr	1	12	5	7	1	1	0	0	0	2	13	15	33.9
46.5N 56.5W 260km 100yr	2	43	18	25	22	3	1	1	0	27	45	72	31.0
46.5N 56.5W 400km 100yr	6	63	29	34	39	5	2	1	0	47	69	116	30.0
046N-047N 057W-056W 50yr	0	7	3	4	1	1	0	0	0	2	7	9	34.0
46.5N 56.5W 260km 50yr	1	28	9	19	10	2	1	1	0	14	29	43	32.8
46.5N 56.5W 400km 50yr	3	43	15	28	22	2	2	1	0	27	46	73	31.4
046N-047N 056W-055W 100yr	1	11	4	7	1	0	0	0	0	1	12	13	32.3
46.5N 55.5W 260km 100yr	2	39	16	23	18	4	1	1	0	24	41	65	31.3
46.5N 55.5W 400km 100yr	5	69	30	39	37	5	2	1	0	45	74	119	30.2
046N-047N 056W-055W 50yr	0	7	3	4	1	0	0	0	0	1	7	8	32.5
46.5N 55.5W 260km 50yr	1	27	9	18	8	3	1	1	0	13	28	41	33.0
46.5N 55.5W 400km 50yr	3	46	14	32	20	2	2	1	0	25	49	74	31.3
046N-047N 055W-054W 100yr	1	10	3	7	5	0	0	0	0	5	11	16	31.8
46.5N 54.5W 260km 100yr	2	40	19	21	19	3	1	1	0	24	42	66	31.1
46.5N 54.5W 400km 100yr	5	68	30	38	36	4	2	1	0	43	73	116	30.2
046N-047N 055W-054W 50yr	0	6	2	4	3	0	0	0	0	3	6	9	32.6
46.5N 54.5W 260km 50yr	1	25	9	16	9	3	1	1	0	14	26	40	32.9
46.5N 54.5W 400km 50yr	3	45	15	30	20	2	2	1	0	25	48	73	31.0
046N-047N 054W-053W 100yr	1	13	5	8	3	0	0	0	0	3	14	17	31.4
46.5N 53.5W 260km 100yr	2	43	20	23	18	2	1	1	0	22	45	67	32.0
46.5N 53.5W 400km 100yr	5	66	28	38	32	6	1	1	0	40	71	111	31.0
046N-047N 054W-053W 50yr	0	8	4	4	1	0	0	0	0	1	8	9	32.9
46.5N 53.5W 260km 50yr	1	26	10	16	10	2	1	1	0	14	27	41	34.2
46.5N 53.5W 400km 50yr	4	43	14	29	19	3	1	1	0	24	47	71	31.6
046N-047N 053W-052W 100yr	1	9	2	7	3	1	1	0	0	5	10	15	34.8
46.5N 52.5W 260km 100yr	1	42	20	22	21	2	1	1	0	25	43	68	31.6
46.5N 52.5W 400km 100yr	6	64	28	36	33	7	1	1	0	42	70	112	30.7
046N-047N 053W-052W 50yr	0	7	2	5	2	1	1	0	0	4	7	11	34.3
46.5N 52.5W 260km 50yr	0	27	10	17	13	2	1	1	0	17	27	44	33.1
46.5N 52.5W 400km 50yr	4	40	14	26	20	4	1	1	0	26	44	70	30.8

Cell or Centre Radius	TD	TS	G	S	S1	S2	S3	S4	S5	H	<H	All	Spd
046N-047N 052W-051W 100yr	1	8	2	6	2	2	1	0	0	5	9	14	34.4
46.5N 51.5W 260km 100yr	1	36	21	15	23	2	2	0	0	27	37	64	31.6
46.5N 51.5W 400km 100yr	6	64	29	35	34	6	1	1	0	42	70	112	30.7
046N-047N 052W-051W 50yr	0	6	1	5	1	2	1	0	0	4	6	10	34.7
46.5N 51.5W 260km 50yr	0	22	11	11	15	2	2	0	0	19	22	41	32.9
46.5N 51.5W 400km 50yr	4	41	15	26	20	3	1	1	0	25	45	70	31.2
046N-047N 051W-050W 100yr	1	6	1	5	6	2	1	0	0	9	7	16	34.2
46.5N 50.5W 260km 100yr	1	38	20	18	22	3	1	0	0	26	39	65	32.1
46.5N 50.5W 400km 100yr	4	58	27	31	35	6	1	1	0	43	62	105	30.6
046N-047N 051W-050W 50yr	0	5	0	5	4	2	1	0	0	7	5	12	33.5
46.5N 50.5W 260km 50yr	0	23	10	13	14	3	1	0	0	18	23	41	33.1
46.5N 50.5W 400km 50yr	3	36	13	23	21	3	1	1	0	26	39	65	31.5
046N-047N 050W-049W 100yr	1	7	1	6	7	0	0	0	0	7	8	15	33.2
46.5N 49.5W 260km 100yr	1	34	16	18	21	2	1	0	0	24	35	59	31.8
46.5N 49.5W 400km 100yr	4	58	27	31	34	6	2	0	0	42	62	104	30.6
046N-047N 050W-049W 50yr	0	5	0	5	4	0	0	0	0	4	5	9	34.5
46.5N 49.5W 260km 50yr	0	20	8	12	14	2	1	0	0	17	20	37	32.0
46.5N 49.5W 400km 50yr	3	36	14	22	20	3	2	0	0	25	39	64	31.4
046N-047N 049W-048W 100yr	1	8	3	5	6	0	0	0	0	6	9	15	32.7
46.5N 48.5W 260km 100yr	1	33	14	19	21	3	1	0	0	25	34	59	31.1
46.5N 48.5W 400km 100yr	4	57	27	30	33	8	1	0	0	42	61	103	31.5
046N-047N 049W-048W 50yr	0	5	1	4	4	0	0	0	0	4	5	9	33.1
46.5N 48.5W 260km 50yr	0	20	6	14	13	3	1	0	0	17	20	37	31.8
46.5N 48.5W 400km 50yr	3	36	15	21	22	5	1	0	0	28	39	67	32.3
046N-047N 048W-047W 100yr	0	8	4	4	4	0	0	0	0	4	8	12	32.1
46.5N 47.5W 260km 100yr	1	34	12	22	21	4	1	0	0	26	35	61	30.5
46.5N 47.5W 400km 100yr	3	56	27	29	36	7	1	0	0	44	59	103	31.6
046N-047N 048W-047W 50yr	0	5	1	4	2	0	0	0	0	2	5	7	30.0
46.5N 47.5W 260km 50yr	0	21	5	16	12	3	1	0	0	16	21	37	30.8
46.5N 47.5W 400km 50yr	2	37	17	20	25	5	1	0	0	31	39	70	32.1
046N-047N 047W-046W 100yr	0	8	3	5	3	0	0	0	0	3	8	11	27.6
46.5N 46.5W 260km 100yr	1	29	10	19	23	4	0	0	0	27	30	57	31.2
46.5N 46.5W 400km 100yr	3	56	26	30	32	6	1	0	0	39	59	98	32.4
046N-047N 047W-046W 50yr	0	6	1	5	2	0	0	0	0	2	6	8	24.7
46.5N 46.5W 260km 50yr	0	19	3	16	14	3	0	0	0	17	19	36	31.4
46.5N 46.5W 400km 50yr	2	37	16	21	22	5	1	0	0	28	39	67	33.2
046N-047N 046W-045W 100yr	0	9	5	4	3	0	0	0	0	3	9	12	27.5
46.5N 45.5W 260km 100yr	1	28	10	18	24	3	0	0	0	27	29	56	32.4
46.5N 45.5W 400km 100yr	2	49	23	26	33	6	2	0	0	41	51	92	32.2
046N-047N 046W-045W 50yr	0	4	1	3	2	0	0	0	0	2	4	6	25.1
46.5N 45.5W 260km 50yr	0	19	4	15	16	2	0	0	0	18	19	37	32.9
46.5N 45.5W 400km 50yr	1	32	13	19	23	5	2	0	0	30	33	63	32.8

047°N to 048°N

Cell or Centre Radius	TD	TS	G	S	S1	S2	S3	S4	S5	H	<H	All	Spd
047N-048N 070W-069W 100yr	6	2	2	0	0	0	0	0	0	0	8	8	34.3
47.5N 69.5W 260km 100yr	9	10	8	2	3	1	0	0	0	4	19	23	29.8
47.5N 69.5W 400km 100yr	10	20	13	7	9	2	0	0	0	11	30	41	28.9
047N-048N 070W-069W 50yr	1	2	2	0	0	0	0	0	0	0	3	3	45.6
47.5N 69.5W 260km 50yr	3	7	6	1	3	1	0	0	0	4	10	14	32.5
47.5N 69.5W 400km 50yr	4	13	7	6	5	2	0	0	0	7	17	24	31.6
047N-048N 069W-068W 100yr	5	3	1	2	0	0	0	0	0	0	8	8	37.6
47.5N 68.5W 260km 100yr	9	16	10	6	4	1	0	0	0	5	25	30	30.3
47.5N 68.5W 400km 100yr	11	23	16	7	9	3	1	0	0	13	34	47	29.7
047N-048N 069W-068W 50yr	2	3	1	2	0	0	0	0	0	0	5	5	37.8
47.5N 68.5W 260km 50yr	3	10	6	4	4	1	0	0	0	5	13	18	33.6
47.5N 68.5W 400km 50yr	5	16	10	6	5	1	1	0	0	7	21	28	29.7
047N-048N 068W-067W 100yr	3	6	4	2	0	0	0	0	0	0	9	9	40.7
47.5N 67.5W 260km 100yr	8	19	11	8	3	1	0	0	0	4	27	31	30.2
47.5N 67.5W 400km 100yr	11	27	16	11	11	3	1	0	0	15	38	53	29.4
047N-048N 068W-067W 50yr	1	4	2	2	0	0	0	0	0	0	5	5	40.5
47.5N 67.5W 260km 50yr	3	11	6	5	3	1	0	0	0	4	14	18	33.6
47.5N 67.5W 400km 50yr	5	19	10	9	5	1	1	0	0	7	24	31	29.8
047N-048N 067W-066W 100yr	1	2	2	0	0	1	0	0	0	1	3	4	30.0
47.5N 66.5W 260km 100yr	6	22	13	9	4	2	0	0	0	6	28	34	32.0
47.5N 66.5W 400km 100yr	9	32	19	13	13	3	1	0	0	17	41	58	29.4
047N-048N 067W-066W 50yr	0	0	0	0	0	1	0	0	0	1	0	1	46.2
47.5N 66.5W 260km 50yr	2	13	7	6	3	2	0	0	0	5	15	20	33.6
47.5N 66.5W 400km 50yr	3	19	10	9	6	1	1	0	0	8	22	30	30.7
047N-048N 066W-065W 100yr	1	4	3	1	1	0	0	0	0	1	5	6	25.9
47.5N 65.5W 260km 100yr	6	26	13	13	3	4	0	0	0	7	32	39	32.6
47.5N 65.5W 400km 100yr	10	34	18	16	16	5	0	0	0	21	44	65	28.2
047N-048N 066W-065W 50yr	0	1	0	1	1	0	0	0	0	1	1	2	36.5
47.5N 65.5W 260km 50yr	2	15	6	9	2	2	0	0	0	4	17	21	33.1
47.5N 65.5W 400km 50yr	4	20	9	11	8	2	0	0	0	10	24	34	28.9
047N-048N 065W-064W 100yr	0	6	5	1	1	1	0	0	0	2	6	8	33.2
47.5N 64.5W 260km 100yr	6	30	14	16	4	4	0	0	0	8	36	44	30.9
47.5N 64.5W 400km 100yr	8	38	19	19	22	5	0	0	0	27	46	73	28.8
047N-048N 065W-064W 50yr	0	3	2	1	1	1	0	0	0	2	3	5	39.1
47.5N 64.5W 260km 50yr	1	15	5	10	2	2	0	0	0	4	16	20	31.4
47.5N 64.5W 400km 50yr	3	22	10	12	13	2	0	0	0	15	25	40	30.0
047N-048N 064W-063W 100yr	0	9	7	2	0	1	0	0	0	1	9	10	29.2
47.5N 63.5W 260km 100yr	5	32	16	16	8	4	0	0	0	12	37	49	29.7
47.5N 63.5W 400km 100yr	8	41	18	23	22	6	0	0	0	28	49	77	29.5
047N-048N 064W-063W 50yr	0	7	5	2	0	1	0	0	0	1	7	8	30.8
47.5N 63.5W 260km 50yr	1	16	6	10	4	2	0	0	0	6	17	23	29.8
47.5N 63.5W 400km 50yr	3	25	9	16	13	2	0	0	0	15	28	43	30.7

Cell or Centre Radius	TD	TS	G	S	S1	S2	S3	S4	S5	H	<H	All	Spd
047N-048N 063W-062W 100yr	0	9	6	3	0	0	0	0	0	0	9	9	30.9
47.5N 62.5W 260km 100yr	4	32	16	16	13	3	0	0	0	16	36	52	28.6
47.5N 62.5W 400km 100yr	6	47	18	29	25	6	0	0	0	31	53	84	29.2
047N-048N 063W-062W 50yr	0	8	5	3	0	0	0	0	0	0	8	8	32.2
47.5N 62.5W 260km 50yr	1	17	7	10	8	1	0	0	0	9	18	27	29.0
47.5N 62.5W 400km 50yr	1	29	8	21	14	2	0	0	0	16	30	46	29.7
047N-048N 062W-061W 100yr	0	9	6	3	2	1	0	0	0	3	9	12	29.5
47.5N 61.5W 260km 100yr	4	33	16	17	16	3	0	0	0	19	37	56	29.0
47.5N 61.5W 400km 100yr	5	48	20	28	26	6	0	0	0	32	53	85	29.4
047N-048N 062W-061W 50yr	0	6	4	2	0	0	0	0	0	0	6	6	31.6
47.5N 61.5W 260km 50yr	1	20	8	12	10	1	0	0	0	11	21	32	29.6
47.5N 61.5W 400km 50yr	1	29	10	19	15	3	0	0	0	18	30	48	29.8
047N-048N 061W-060W 100yr	1	13	8	5	2	1	0	0	0	3	14	17	29.4
47.5N 60.5W 260km 100yr	4	37	18	19	16	2	0	0	0	18	41	59	28.4
47.5N 60.5W 400km 100yr	3	49	22	27	27	5	0	0	0	32	52	84	29.2
047N-048N 061W-060W 50yr	0	7	3	4	0	0	0	0	0	0	7	7	30.0
47.5N 60.5W 260km 50yr	1	24	10	14	10	0	0	0	0	10	25	35	29.8
47.5N 60.5W 400km 50yr	1	29	10	19	15	2	0	0	0	17	30	47	29.7
047N-048N 060W-059W 100yr	1	17	8	9	4	0	0	0	0	4	18	22	27.6
47.5N 59.5W 260km 100yr	4	40	19	21	17	2	0	0	0	19	44	63	28.8
47.5N 59.5W 400km 100yr	4	54	26	28	29	5	0	0	0	34	58	92	29.7
047N-048N 060W-059W 50yr	0	9	3	6	2	0	0	0	0	2	9	11	28.8
47.5N 59.5W 260km 50yr	1	25	10	15	9	1	0	0	0	10	26	36	29.8
47.5N 59.5W 400km 50yr	2	34	13	21	15	2	0	0	0	17	36	53	30.3
047N-048N 059W-058W 100yr	0	12	5	7	7	0	0	0	0	7	12	19	28.4
47.5N 58.5W 260km 100yr	4	40	20	20	17	2	0	0	0	19	44	63	29.4
47.5N 58.5W 400km 100yr	3	58	27	31	31	4	0	1	0	36	61	97	29.3
047N-048N 059W-058W 50yr	0	5	1	4	3	0	0	0	0	3	5	8	31.9
47.5N 58.5W 260km 50yr	1	25	11	14	8	1	0	0	0	9	26	35	29.8
47.5N 58.5W 400km 50yr	2	37	14	23	17	1	0	1	0	19	39	58	30.8
047N-048N 058W-057W 100yr	1	9	4	5	3	1	0	0	0	4	10	14	29.1
47.5N 57.5W 260km 100yr	4	39	18	21	20	2	0	0	0	22	43	65	29.8
47.5N 57.5W 400km 100yr	3	56	26	30	32	4	1	1	0	38	59	97	29.3
047N-048N 058W-057W 50yr	0	5	3	2	1	1	0	0	0	2	5	7	31.4
47.5N 57.5W 260km 50yr	1	26	10	16	9	1	0	0	0	10	27	37	30.4
47.5N 57.5W 400km 50yr	2	35	13	22	17	2	1	1	0	21	37	58	30.8
047N-048N 057W-056W 100yr	0	11	5	6	0	1	0	0	0	1	11	12	31.1
47.5N 56.5W 260km 100yr	3	40	16	24	20	2	0	0	0	22	43	65	31.0
47.5N 56.5W 400km 100yr	5	58	26	32	32	5	1	1	0	39	63	102	30.2
047N-048N 057W-056W 50yr	0	7	4	3	0	1	0	0	0	1	7	8	28.4
47.5N 56.5W 260km 50yr	1	25	8	17	8	1	0	0	0	9	26	35	32.7
47.5N 56.5W 400km 50yr	3	40	14	26	15	3	1	1	0	20	43	63	31.0

Cell or Centre Radius	TD	TS	G	S	S1	S2	S3	S4	S5	H	<H	All	Spd
047N-048N 056W-055W 100yr	0	10	3	7	0	0	0	0	0	0	10	10	33.4
47.5N 55.5W 260km 100yr	3	37	16	21	18	1	1	0	0	20	40	60	30.9
47.5N 55.5W 400km 100yr	5	61	29	32	33	5	1	1	0	40	66	106	30.5
047N-048N 056W-055W 50yr	0	5	1	4	0	0	0	0	0	0	5	5	34.4
47.5N 55.5W 260km 50yr	1	22	8	14	8	1	1	0	0	10	23	33	32.8
47.5N 55.5W 400km 50yr	3	39	13	26	16	3	1	1	0	21	42	63	31.7
047N-048N 055W-054W 100yr	0	11	5	6	2	0	0	0	0	2	11	13	32.7
47.5N 54.5W 260km 100yr	3	38	14	24	14	3	2	0	0	19	41	60	31.6
47.5N 54.5W 400km 100yr	5	62	28	34	34	5	1	1	0	41	67	108	30.6
047N-048N 055W-054W 50yr	0	8	3	5	1	0	0	0	0	1	8	9	33.5
47.5N 54.5W 260km 50yr	1	25	8	17	6	3	2	0	0	11	26	37	33.4
47.5N 54.5W 400km 50yr	3	39	13	26	17	3	1	1	0	22	42	64	32.0
047N-048N 054W-053W 100yr	0	8	5	3	4	0	0	0	0	4	8	12	30.5
47.5N 53.5W 260km 100yr	2	38	17	21	12	3	2	0	0	17	40	57	31.1
47.5N 53.5W 400km 100yr	4	60	27	33	36	3	1	1	0	41	64	105	30.3
047N-048N 054W-053W 50yr	0	3	2	1	2	0	0	0	0	2	3	5	38.8
47.5N 53.5W 260km 50yr	0	23	10	13	6	3	2	0	0	11	23	34	32.2
47.5N 53.5W 400km 50yr	2	38	12	26	20	3	1	1	0	25	40	65	31.4
047N-048N 053W-052W 100yr	0	11	6	5	3	0	0	0	0	3	11	14	29.5
47.5N 52.5W 260km 100yr	2	37	14	23	16	2	2	0	0	20	39	59	32.1
47.5N 52.5W 400km 100yr	4	56	27	29	32	3	1	1	0	37	60	97	31.2
047N-048N 053W-052W 50yr	0	6	3	3	2	0	0	0	0	2	6	8	31.3
47.5N 52.5W 260km 50yr	0	23	7	16	8	2	2	0	0	12	23	35	33.4
47.5N 52.5W 400km 50yr	2	34	13	21	18	3	1	1	0	23	36	59	32.6
047N-048N 052W-051W 100yr	1	10	4	6	2	0	0	0	0	2	11	13	30.4
47.5N 51.5W 260km 100yr	1	39	16	23	15	3	1	0	0	19	40	59	32.6
47.5N 51.5W 400km 100yr	4	58	27	31	29	3	1	1	0	34	62	96	30.9
047N-048N 052W-051W 50yr	0	7	4	3	1	0	0	0	0	1	7	8	30.4
47.5N 51.5W 260km 50yr	0	23	7	16	8	3	1	0	0	12	23	35	34.1
47.5N 51.5W 400km 50yr	2	33	15	18	19	3	1	1	0	24	35	59	32.0
047N-048N 051W-050W 100yr	0	9	4	5	1	2	1	0	0	4	9	13	34.5
47.5N 50.5W 260km 100yr	1	38	16	22	19	2	1	0	0	22	39	61	32.0
47.5N 50.5W 400km 100yr	4	56	26	30	29	2	2	0	0	33	60	93	30.8
047N-048N 051W-050W 50yr	0	4	2	2	1	2	1	0	0	4	4	8	34.7
47.5N 50.5W 260km 50yr	0	22	7	15	11	2	1	0	0	14	22	36	33.7
47.5N 50.5W 400km 50yr	2	33	14	19	18	2	2	0	0	22	35	57	31.9
047N-048N 050W-049W 100yr	1	9	3	6	7	1	0	0	0	8	10	18	34.5
47.5N 49.5W 260km 100yr	1	38	17	21	18	2	1	0	0	21	39	60	31.2
47.5N 49.5W 400km 100yr	4	58	27	31	28	4	2	0	0	34	62	96	30.6
047N-048N 050W-049W 50yr	0	4	1	3	5	1	0	0	0	6	4	10	33.9
47.5N 49.5W 260km 50yr	0	23	7	16	10	2	1	0	0	13	23	36	32.4
47.5N 49.5W 400km 50yr	2	36	15	21	17	3	2	0	0	22	38	60	31.7

Cell or Centre Radius	TD	TS	G	S	S1	S2	S3	S4	S5	H	<H	All	Spd
047N-048N 049W-048W 100yr	1	6	1	5	8	1	0	0	0	9	7	16	37.7
47.5N 48.5W 260km 100yr	1	36	16	20	15	2	1	0	0	18	37	55	30.8
47.5N 48.5W 400km 100yr	3	56	24	32	29	5	1	0	0	35	59	94	31.5
047N-048N 049W-048W 50yr	0	3	0	3	5	1	0	0	0	6	3	9	39.4
47.5N 48.5W 260km 50yr	0	21	7	14	9	2	1	0	0	12	21	33	31.5
47.5N 48.5W 400km 50yr	1	36	14	22	17	4	1	0	0	22	37	59	32.6
047N-048N 048W-047W 100yr	1	6	3	3	8	0	0	0	0	8	7	15	35.9
47.5N 47.5W 260km 100yr	1	36	16	20	17	2	1	0	0	20	37	57	31.4
47.5N 47.5W 400km 100yr	2	52	24	28	28	5	1	0	0	34	54	88	31.3
047N-048N 048W-047W 50yr	0	3	1	2	5	0	0	0	0	5	3	8	37.6
47.5N 47.5W 260km 50yr	0	20	5	15	10	2	1	0	0	13	20	33	31.9
47.5N 47.5W 400km 50yr	1	35	14	21	17	4	1	0	0	22	36	58	32.2
047N-048N 047W-046W 100yr	1	7	3	4	5	0	0	0	0	5	8	13	32.7
47.5N 46.5W 260km 100yr	1	36	15	21	20	1	0	0	0	21	37	58	31.0
47.5N 46.5W 400km 100yr	2	52	24	28	24	6	1	0	0	31	54	85	31.2
047N-048N 047W-046W 50yr	0	3	0	3	3	0	0	0	0	3	3	6	35.5
47.5N 46.5W 260km 50yr	0	22	6	16	12	1	0	0	0	13	22	35	31.1
47.5N 46.5W 400km 50yr	1	35	15	20	15	5	1	0	0	21	36	57	32.0
047N-048N 046W-045W 100yr	0	6	1	5	3	0	0	0	0	3	6	9	30.2
47.5N 45.5W 260km 100yr	1	31	13	18	18	4	0	0	0	22	32	54	31.6
47.5N 45.5W 400km 100yr	2	50	20	30	28	6	1	0	0	35	52	87	31.9
047N-048N 046W-045W 50yr	0	4	0	4	2	0	0	0	0	2	4	6	31.4
47.5N 45.5W 260km 50yr	0	17	5	12	11	3	0	0	0	14	17	31	32.2
47.5N 45.5W 400km 50yr	1	33	11	22	19	5	1	0	0	25	34	59	32.5

048°N to 049°N

Cell or Centre Radius	TD	TS	G	S	S1	S2	S3	S4	S5	H	<H	All	Spd
048N-049N 070W-069W 100yr	1	2	2	0	0	0	0	0	0	0	3	3	33.6
48.5N 69.5W 260km 100yr	8	8	6	2	1	1	0	0	0	2	16	18	32.1
48.5N 69.5W 400km 100yr	9	18	12	6	5	1	0	0	0	6	27	33	30.0
048N-049N 070W-069W 50yr	0	2	2	0	0	0	0	0	0	0	2	2	37.8
48.5N 69.5W 260km 50yr	3	6	4	2	1	1	0	0	0	2	9	11	34.3
48.5N 69.5W 400km 50yr	4	10	6	4	5	1	0	0	0	6	14	20	33.9
048N-049N 069W-068W 100yr	4	2	2	0	0	0	0	0	0	0	6	6	34.3
48.5N 68.5W 260km 100yr	9	10	7	3	1	1	0	0	0	2	19	21	30.7
48.5N 68.5W 400km 100yr	8	20	13	7	5	2	0	0	0	7	28	35	29.5
048N-049N 069W-068W 50yr	2	2	2	0	0	0	0	0	0	0	4	4	40.4
48.5N 68.5W 260km 50yr	3	6	4	2	1	1	0	0	0	2	9	11	34.2
48.5N 68.5W 400km 50yr	3	11	7	4	5	2	0	0	0	7	14	21	32.5
048N-049N 068W-067W 100yr	6	4	2	2	0	0	0	0	0	0	10	10	36.6
48.5N 67.5W 260km 100yr	8	13	9	4	2	1	0	0	0	3	21	24	31.4
48.5N 67.5W 400km 100yr	8	23	14	9	6	2	0	0	0	8	31	39	30.8
048N-049N 068W-067W 50yr	2	3	1	2	0	0	0	0	0	0	5	5	38.0
48.5N 67.5W 260km 50yr	2	7	4	3	2	1	0	0	0	3	9	12	36.9
48.5N 67.5W 400km 50yr	3	14	8	6	5	2	0	0	0	7	17	24	32.0

Cell or Centre Radius	TD	TS	G	S	S1	S2	S3	S4	S5	H	<H	All	Spd
048N-049N 067W-066W 100yr	3	4	2	2	0	1	0	0	0	1	7	8	35.9
48.5N 66.5W 260km 100yr	6	18	12	6	2	2	0	0	0	4	24	28	31.4
48.5N 66.5W 400km 100yr	9	32	17	15	5	4	0	0	0	9	41	50	29.7
048N-049N 067W-066W 50yr	0	2	0	2	0	1	0	0	0	1	2	3	37.0
48.5N 66.5W 260km 50yr	2	10	6	4	2	2	0	0	0	4	12	16	35.6
48.5N 66.5W 400km 50yr	3	19	9	10	3	2	0	0	0	5	22	27	30.9
048N-049N 066W-065W 100yr	3	2	1	1	0	1	0	0	0	1	5	6	34.1
48.5N 65.5W 260km 100yr	6	20	13	7	2	2	0	0	0	4	26	30	31.7
48.5N 65.5W 400km 100yr	10	33	17	16	5	4	0	0	0	9	43	52	29.9
048N-049N 066W-065W 50yr	0	1	0	1	0	1	0	0	0	1	1	2	35.9
48.5N 65.5W 260km 50yr	2	12	7	5	2	2	0	0	0	4	14	18	34.0
48.5N 65.5W 400km 50yr	4	17	8	9	3	2	0	0	0	5	21	26	31.8
048N-049N 065W-064W 100yr	2	1	1	0	1	0	0	0	0	1	3	4	30.1
48.5N 64.5W 260km 100yr	5	24	15	9	3	3	0	0	0	6	29	35	29.9
48.5N 64.5W 400km 100yr	8	39	18	21	9	4	0	0	0	13	47	60	29.4
048N-049N 065W-064W 50yr	0	0	0	0	1	0	0	0	0	1	0	1	48.9
48.5N 64.5W 260km 50yr	1	13	7	6	2	2	0	0	0	4	14	18	32.1
48.5N 64.5W 400km 50yr	3	22	9	13	5	2	0	0	0	7	25	32	31.2
048N-049N 064W-063W 100yr	2	4	3	1	2	0	0	0	0	2	6	8	26.9
48.5N 63.5W 260km 100yr	4	27	15	12	2	4	0	0	0	6	31	37	29.7
48.5N 63.5W 400km 100yr	8	42	18	24	14	4	0	0	0	18	50	68	29.6
048N-049N 064W-063W 50yr	0	1	0	1	2	0	0	0	0	2	1	3	32.2
48.5N 63.5W 260km 50yr	0	15	6	9	1	2	0	0	0	3	15	18	31.9
48.5N 63.5W 400km 50yr	3	24	9	15	8	2	0	0	0	10	27	37	30.5
048N-049N 063W-062W 100yr	2	4	4	0	1	0	0	0	0	1	6	7	25.9
48.5N 62.5W 260km 100yr	4	31	17	14	3	4	0	0	0	7	35	42	29.2
48.5N 62.5W 400km 100yr	7	41	17	24	18	4	0	0	0	22	48	70	28.9
048N-049N 063W-062W 50yr	0	2	2	0	1	0	0	0	0	1	2	3	26.2
48.5N 62.5W 260km 50yr	0	18	8	10	1	2	0	0	0	3	18	21	30.7
48.5N 62.5W 400km 50yr	2	23	8	15	11	2	0	0	0	13	25	38	29.4
048N-049N 062W-061W 100yr	2	6	6	0	0	0	0	0	0	0	8	8	26.2
48.5N 61.5W 260km 100yr	5	31	14	17	10	2	0	0	0	12	36	48	29.3
48.5N 61.5W 400km 100yr	5	49	21	28	18	5	0	0	0	23	54	77	29.5
048N-049N 062W-061W 50yr	0	3	3	0	0	0	0	0	0	0	3	3	28.5
48.5N 61.5W 260km 50yr	1	19	7	12	4	1	0	0	0	5	20	25	30.8
48.5N 61.5W 400km 50yr	1	28	8	20	11	3	0	0	0	14	29	43	30.1
048N-049N 061W-060W 100yr	2	6	4	2	1	1	0	0	0	2	8	10	30.2
48.5N 60.5W 260km 100yr	5	30	15	15	13	1	0	0	0	14	35	49	29.3
48.5N 60.5W 400km 100yr	3	51	26	25	19	4	0	0	0	23	54	77	29.4
048N-049N 061W-060W 50yr	0	5	3	2	0	0	0	0	0	0	5	5	30.0
48.5N 60.5W 260km 50yr	1	18	7	11	6	0	0	0	0	6	19	25	30.9
48.5N 60.5W 400km 50yr	1	30	12	18	11	2	0	0	0	13	31	44	29.4

Cell or Centre Radius	TD	TS	G	S	S1	S2	S3	S4	S5	H	<H	All	Spd
048N-049N 060W-059W 100yr	2	10	4	6	3	1	0	0	0	4	12	16	28.0
48.5N 59.5W 260km 100yr	3	30	14	16	12	2	0	0	0	14	33	47	28.1
48.5N 59.5W 400km 100yr	3	48	23	25	21	4	0	0	0	25	51	76	29.5
048N-049N 060W-059W 50yr	0	7	3	4	0	0	0	0	0	0	7	7	30.1
48.5N 59.5W 260km 50yr	1	18	6	12	5	1	0	0	0	6	19	25	29.8
48.5N 59.5W 400km 50yr	1	29	11	18	12	2	0	0	0	14	30	44	30.0
048N-049N 059W-058W 100yr	2	9	3	6	6	1	0	0	0	7	11	18	27.3
48.5N 58.5W 260km 100yr	2	39	21	18	11	2	0	0	0	13	41	54	29.0
48.5N 58.5W 400km 100yr	3	52	24	28	25	2	0	0	0	27	55	82	29.6
048N-049N 059W-058W 50yr	0	5	1	4	2	0	0	0	0	2	5	7	29.6
48.5N 58.5W 260km 50yr	1	20	9	11	5	1	0	0	0	6	21	27	30.4
48.5N 58.5W 400km 50yr	1	32	12	20	13	1	0	0	0	14	33	47	30.2
048N-049N 058W-057W 100yr	3	10	4	6	3	0	0	0	0	3	13	16	29.6
48.5N 57.5W 260km 100yr	1	40	20	20	10	2	0	0	0	12	41	53	29.4
48.5N 57.5W 400km 100yr	5	53	24	29	24	2	0	0	0	26	58	84	30.1
048N-049N 058W-057W 50yr	0	4	1	3	1	0	0	0	0	1	4	5	34.5
48.5N 57.5W 260km 50yr	0	23	10	13	4	1	0	0	0	5	23	28	30.3
48.5N 57.5W 400km 50yr	2	33	11	22	11	1	0	0	0	12	35	47	31.2
048N-049N 057W-056W 100yr	2	10	5	5	2	1	0	0	0	3	12	15	29.2
48.5N 56.5W 260km 100yr	2	38	17	21	12	2	0	0	0	14	40	54	29.7
48.5N 56.5W 400km 100yr	4	53	26	27	25	2	1	0	0	28	57	85	30.0
048N-049N 057W-056W 50yr	0	6	4	2	1	1	0	0	0	2	6	8	29.4
48.5N 56.5W 260km 50yr	1	21	8	13	5	1	0	0	0	6	22	28	30.9
48.5N 56.5W 400km 50yr	2	34	13	21	11	1	1	0	0	13	36	49	31.4
048N-049N 056W-055W 100yr	1	10	7	3	0	0	0	0	0	0	11	11	30.0
48.5N 55.5W 260km 100yr	3	40	17	23	12	2	0	0	0	14	43	57	30.6
48.5N 55.5W 400km 100yr	4	55	26	29	24	4	1	1	0	30	59	89	30.6
048N-049N 056W-055W 50yr	0	5	4	1	0	0	0	0	0	0	5	5	28.3
48.5N 55.5W 260km 50yr	1	19	7	12	6	1	0	0	0	7	20	27	32.3
48.5N 55.5W 400km 50yr	2	35	13	22	10	3	1	1	0	15	37	52	32.3
048N-049N 055W-054W 100yr	1	13	7	6	0	0	0	0	0	0	14	14	30.8
48.5N 54.5W 260km 100yr	3	40	18	22	10	1	0	0	0	11	43	54	31.2
48.5N 54.5W 400km 100yr	4	54	24	30	26	4	1	1	0	32	58	90	30.7
048N-049N 055W-054W 50yr	0	7	3	4	0	0	0	0	0	0	7	7	30.1
48.5N 54.5W 260km 50yr	0	22	10	12	4	1	0	0	0	5	22	27	33.1
48.5N 54.5W 400km 50yr	2	35	12	23	10	3	1	1	0	15	37	52	31.8
048N-049N 054W-053W 100yr	0	11	4	7	2	0	0	0	0	2	11	13	31.2
48.5N 53.5W 260km 100yr	2	38	15	23	9	1	1	0	0	11	40	51	31.8
48.5N 53.5W 400km 100yr	4	56	23	33	26	4	2	0	0	32	60	92	30.6
048N-049N 054W-053W 50yr	0	6	2	4	1	0	0	0	0	1	6	7	32.5
48.5N 53.5W 260km 50yr	0	22	9	13	4	1	1	0	0	6	22	28	33.1
48.5N 53.5W 400km 50yr	2	32	9	23	12	3	2	0	0	17	34	51	32.3

Cell or Centre Radius	TD	TS	G	S	S1	S2	S3	S4	S5	H	<H	All	Spd
048N-049N 053W-052W 100yr	0	9	4	5	4	0	0	0	0	4	9	13	31.8
48.5N 52.5W 260km 100yr	2	38	15	23	9	2	1	0	0	12	40	52	32.2
48.5N 52.5W 400km 100yr	4	58	27	31	22	4	2	0	0	28	62	90	30.9
048N-049N 053W-052W 50yr	0	5	2	3	2	0	0	0	0	2	5	7	32.5
48.5N 52.5W 260km 50yr	0	22	9	13	6	2	1	0	0	9	22	31	33.3
48.5N 52.5W 400km 50yr	1	31	11	20	11	3	2	0	0	16	32	48	32.2
048N-049N 052W-051W 100yr	0	11	5	6	3	0	0	0	0	3	11	14	31.1
48.5N 51.5W 260km 100yr	2	33	15	18	11	2	1	0	0	14	35	49	32.4
48.5N 51.5W 400km 100yr	3	59	26	33	22	3	2	0	0	27	62	89	30.9
048N-049N 052W-051W 50yr	0	8	3	5	2	0	0	0	0	2	8	10	32.1
48.5N 51.5W 260km 50yr	0	19	8	11	6	2	1	0	0	9	19	28	33.7
48.5N 51.5W 400km 50yr	0	33	11	22	12	3	2	0	0	17	33	50	32.6
048N-049N 051W-050W 100yr	0	8	4	4	0	0	0	0	0	0	8	8	31.9
48.5N 50.5W 260km 100yr	2	35	16	19	14	2	1	0	0	17	37	54	32.3
48.5N 50.5W 400km 100yr	2	60	27	33	23	3	1	0	0	27	62	89	30.6
048N-049N 051W-050W 50yr	0	5	2	3	0	0	0	0	0	0	5	5	34.3
48.5N 50.5W 260km 50yr	0	21	9	12	8	2	1	0	0	11	21	32	34.0
48.5N 50.5W 400km 50yr	0	34	13	21	13	3	1	0	0	17	34	51	32.0
048N-049N 050W-049W 100yr	0	9	4	5	1	0	0	0	0	1	9	10	30.2
48.5N 49.5W 260km 100yr	2	33	15	18	14	2	1	0	0	17	35	52	32.6
48.5N 49.5W 400km 100yr	2	52	25	27	24	2	1	0	0	27	54	81	30.8
048N-049N 050W-049W 50yr	0	4	1	3	1	0	0	0	0	1	4	5	28.8
48.5N 49.5W 260km 50yr	0	20	9	11	8	2	1	0	0	11	20	31	33.3
48.5N 49.5W 400km 50yr	0	31	12	19	14	2	1	0	0	17	31	48	31.9
048N-049N 049W-048W 100yr	0	8	2	6	3	1	0	0	0	4	8	12	35.4
48.5N 48.5W 260km 100yr	1	32	16	16	14	2	1	0	0	17	33	50	32.3
48.5N 48.5W 400km 100yr	2	51	23	28	24	2	1	0	0	27	53	80	30.8
048N-049N 049W-048W 50yr	0	3	0	3	2	1	0	0	0	3	3	6	35.0
48.5N 48.5W 260km 50yr	0	19	9	10	9	2	1	0	0	12	19	31	33.2
48.5N 48.5W 400km 50yr	0	30	11	19	14	2	1	0	0	17	30	47	32.1
048N-049N 048W-047W 100yr	0	7	3	4	6	1	0	0	0	7	7	14	35.7
48.5N 47.5W 260km 100yr	1	33	14	19	13	1	1	0	0	15	34	49	31.4
48.5N 47.5W 400km 100yr	2	52	23	29	23	2	1	0	0	26	54	80	30.8
048N-049N 048W-047W 50yr	0	2	1	1	4	1	0	0	0	5	2	7	37.4
48.5N 47.5W 260km 50yr	0	19	7	12	9	1	1	0	0	11	19	30	31.9
48.5N 47.5W 400km 50yr	0	34	13	21	13	2	1	0	0	16	34	50	31.4
048N-049N 047W-046W 100yr	0	8	5	3	8	0	0	0	0	8	8	16	35.2
48.5N 46.5W 260km 100yr	1	35	15	20	15	1	0	0	0	16	36	52	31.8
48.5N 46.5W 400km 100yr	2	51	24	27	22	5	1	0	0	28	53	81	31.2
048N-049N 047W-046W 50yr	0	2	1	1	6	0	0	0	0	6	2	8	36.2
48.5N 46.5W 260km 50yr	0	20	7	13	10	1	0	0	0	11	20	31	31.9
48.5N 46.5W 400km 50yr	0	33	14	19	13	4	1	0	0	18	33	51	31.8

Cell or Centre Radius	TD	TS	G	S	S1	S2	S3	S4	S5	H	<H	All	Spd
048N-049N 046W-045W 100yr	1	4	1	3	6	0	0	0	0	6	5	11	37.7
48.5N 45.5W 260km 100yr	1	34	15	19	15	1	0	0	0	16	35	51	31.1
48.5N 45.5W 400km 100yr	3	47	19	28	23	4	1	0	0	28	50	78	31.8
048N-049N 046W-045W 50yr	0	1	0	1	3	0	0	0	0	3	1	4	37.3
48.5N 45.5W 260km 50yr	0	18	5	13	10	1	0	0	0	11	18	29	30.6
48.5N 45.5W 400km 50yr	1	31	10	21	14	3	1	0	0	18	32	50	32.1

049°N to 050°N

049N-050N 070W-069W 100yr	0	2	2	0	0	0	0	0	0	0	2	2	37.8
49.5N 69.5W 260km 100yr	7	8	5	3	0	0	0	0	0	0	15	15	32.8
49.5N 69.5W 400km 100yr	10	9	7	2	3	1	0	0	0	4	19	23	31.0
049N-050N 070W-069W 50yr	0	2	2	0	0	0	0	0	0	0	2	2	37.8
49.5N 69.5W 260km 50yr	2	6	3	3	0	0	0	0	0	0	8	8	36.3
49.5N 69.5W 400km 50yr	4	5	4	1	3	1	0	0	0	4	9	13	35.6
049N-050N 069W-068W 100yr	0	1	1	0	0	0	0	0	0	0	1	1	40.2
49.5N 68.5W 260km 100yr	7	9	6	3	0	1	0	0	0	1	16	17	33.2
49.5N 68.5W 400km 100yr	10	16	10	6	3	1	0	0	0	4	26	30	29.3
049N-050N 069W-068W 50yr	0	1	1	0	0	0	0	0	0	0	1	1	40.2
49.5N 68.5W 260km 50yr	2	7	4	3	0	1	0	0	0	1	9	10	36.7
49.5N 68.5W 400km 50yr	4	10	5	5	3	1	0	0	0	4	14	18	31.8
049N-050N 068W-067W 100yr	2	1	1	0	0	0	0	0	0	0	3	3	25.6
49.5N 67.5W 260km 100yr	6	9	7	2	1	1	0	0	0	2	15	17	35.8
49.5N 67.5W 400km 100yr	9	19	13	6	3	2	0	0	0	5	28	33	29.8
049N-050N 068W-067W 50yr	1	1	1	0	0	0	0	0	0	0	2	2	26.3
49.5N 67.5W 260km 50yr	2	6	4	2	1	1	0	0	0	2	8	10	38.2
49.5N 67.5W 400km 50yr	4	10	6	4	3	2	0	0	0	5	14	19	33.7
049N-050N 067W-066W 100yr	2	3	2	1	0	0	0	0	0	0	5	5	29.3
49.5N 66.5W 260km 100yr	6	12	9	3	2	1	0	0	0	3	18	21	33.6
49.5N 66.5W 400km 100yr	7	24	15	9	3	2	0	0	0	5	31	36	29.8
049N-050N 067W-066W 50yr	1	2	1	1	0	0	0	0	0	0	3	3	30.3
49.5N 66.5W 260km 50yr	2	7	4	3	2	1	0	0	0	3	9	12	35.8
49.5N 66.5W 400km 50yr	2	14	8	6	3	2	0	0	0	5	16	21	34.0
049N-050N 066W-065W 100yr	2	3	1	2	1	0	0	0	0	1	5	6	37.6
49.5N 65.5W 260km 100yr	6	13	10	3	2	1	0	0	0	3	19	22	32.0
49.5N 65.5W 400km 100yr	7	28	19	9	2	4	0	0	0	6	35	41	29.8
049N-050N 066W-065W 50yr	0	2	0	2	1	0	0	0	0	1	2	3	36.6
49.5N 65.5W 260km 50yr	2	6	3	3	2	1	0	0	0	3	8	11	35.6
49.5N 65.5W 400km 50yr	2	16	10	6	2	2	0	0	0	4	18	22	33.7
049N-050N 065W-064W 100yr	1	1	0	1	0	0	0	0	0	0	2	2	43.7
49.5N 64.5W 260km 100yr	5	15	12	3	2	1	0	0	0	3	20	23	30.3
49.5N 64.5W 400km 100yr	7	34	19	15	3	4	0	0	0	7	41	48	30.1
049N-050N 065W-064W 50yr	0	1	0	1	0	0	0	0	0	0	1	1	25.4
49.5N 64.5W 260km 50yr	1	7	4	3	2	1	0	0	0	3	8	11	33.7
49.5N 64.5W 400km 50yr	2	20	11	9	2	2	0	0	0	4	22	26	33.0

Cell or Centre Radius	TD	TS	G	S	S1	S2	S3	S4	S5	H	<H	All	Spd
049N-050N 064W-063W 100yr	1	4	1	3	1	0	0	0	0	1	5	6	35.3
49.5N 63.5W 260km 100yr	5	16	11	5	2	1	0	0	0	3	21	24	30.1
49.5N 63.5W 400km 100yr	7	38	20	18	8	4	0	0	0	12	45	57	28.7
049N-050N 064W-063W 50yr	0	3	0	3	1	0	0	0	0	1	3	4	29.3
49.5N 63.5W 260km 50yr	1	9	5	4	2	1	0	0	0	3	10	13	33.3
49.5N 63.5W 400km 50yr	2	22	10	12	5	2	0	0	0	7	24	31	30.6
049N-050N 063W-062W 100yr	0	4	2	2	1	0	0	0	0	1	4	5	27.0
49.5N 62.5W 260km 100yr	4	22	12	10	5	1	0	0	0	6	26	32	30.5
49.5N 62.5W 400km 100yr	5	39	19	20	10	4	0	0	0	14	44	58	28.5
049N-050N 063W-062W 50yr	0	2	0	2	1	0	0	0	0	1	2	3	30.8
49.5N 62.5W 260km 50yr	0	12	5	7	3	0	0	0	0	3	12	15	35.0
49.5N 62.5W 400km 50yr	2	21	7	14	5	2	0	0	0	7	23	30	29.6
049N-050N 062W-061W 100yr	0	4	4	0	0	0	0	0	0	0	4	4	22.4
49.5N 61.5W 260km 100yr	5	24	14	10	8	1	0	0	0	9	29	38	29.0
49.5N 61.5W 400km 100yr	4	38	20	18	13	5	0	0	0	18	42	60	29.1
049N-050N 062W-061W 50yr	0	0	0	0	0	0	0	0	0	0	0	0	0.0
49.5N 61.5W 260km 50yr	0	15	7	8	4	0	0	0	0	4	15	19	31.4
49.5N 61.5W 400km 50yr	1	22	9	13	7	3	0	0	0	10	23	33	30.4
049N-050N 061W-060W 100yr	1	6	6	0	0	0	0	0	0	0	7	7	26.1
49.5N 60.5W 260km 100yr	3	28	15	13	8	1	0	0	0	9	31	40	28.6
49.5N 60.5W 400km 100yr	4	42	21	21	16	3	0	0	0	19	46	65	28.8
049N-050N 061W-060W 50yr	0	3	3	0	0	0	0	0	0	0	3	3	29.0
49.5N 60.5W 260km 50yr	0	16	6	10	4	0	0	0	0	4	16	20	29.8
49.5N 60.5W 400km 50yr	1	24	9	15	9	2	0	0	0	11	25	36	29.6
049N-050N 060W-059W 100yr	1	6	4	2	0	0	0	0	0	0	7	7	30.3
49.5N 59.5W 260km 100yr	3	31	15	16	10	1	0	0	0	11	34	45	28.6
49.5N 59.5W 400km 100yr	4	47	24	23	16	2	0	0	0	18	51	69	29.1
049N-050N 060W-059W 50yr	0	4	3	1	0	0	0	0	0	0	4	4	33.8
49.5N 59.5W 260km 50yr	0	17	6	11	5	0	0	0	0	5	17	22	29.6
49.5N 59.5W 400km 50yr	1	28	13	15	9	1	0	0	0	10	29	39	29.8
049N-050N 059W-058W 100yr	2	6	2	4	3	1	0	0	0	4	8	12	30.0
49.5N 58.5W 260km 100yr	1	32	18	14	9	2	0	0	0	11	33	44	28.2
49.5N 58.5W 400km 100yr	4	49	24	25	16	2	0	0	0	18	53	71	29.5
049N-050N 059W-058W 50yr	1	4	1	3	2	0	0	0	0	2	5	7	29.7
49.5N 58.5W 260km 50yr	0	17	8	9	3	1	0	0	0	4	17	21	29.2
49.5N 58.5W 400km 50yr	1	29	12	17	8	1	0	0	0	9	30	39	30.6
049N-050N 058W-057W 100yr	3	9	3	6	3	1	0	0	0	4	12	16	27.9
49.5N 57.5W 260km 100yr	1	36	19	17	8	2	0	0	0	10	37	47	28.3
49.5N 57.5W 400km 100yr	4	49	23	26	16	2	0	0	0	18	53	71	29.4
049N-050N 058W-057W 50yr	1	5	1	4	1	0	0	0	0	1	6	7	30.1
49.5N 57.5W 260km 50yr	0	19	9	10	3	1	0	0	0	4	19	23	29.3
49.5N 57.5W 400km 50yr	1	27	11	16	7	1	0	0	0	8	28	36	30.0

Cell or Centre Radius	TD	TS	G	S	S1	S2	S3	S4	S5	H	<H	All	Spd
049N-050N 057W-056W 100yr	1	10	3	7	3	0	0	0	0	3	11	14	30.3
49.5N 56.5W 260km 100yr	1	38	17	21	9	2	0	0	0	11	39	50	29.4
49.5N 56.5W 400km 100yr	3	52	25	27	15	2	0	0	0	17	55	72	29.8
049N-050N 057W-056W 50yr	0	4	1	3	2	0	0	0	0	2	4	6	31.8
49.5N 56.5W 260km 50yr	0	21	9	12	3	1	0	0	0	4	21	25	30.4
49.5N 56.5W 400km 50yr	0	28	11	17	7	1	0	0	0	8	28	36	30.9
049N-050N 056W-055W 100yr	1	8	3	5	3	0	0	0	0	3	9	12	30.6
49.5N 55.5W 260km 100yr	3	36	15	21	10	2	0	0	0	12	39	51	29.7
49.5N 55.5W 400km 100yr	2	53	24	29	17	2	0	0	0	19	55	74	29.8
049N-050N 056W-055W 50yr	0	4	2	2	2	0	0	0	0	2	4	6	29.8
49.5N 55.5W 260km 50yr	1	19	7	12	4	1	0	0	0	5	20	25	30.7
49.5N 55.5W 400km 50yr	0	30	12	18	8	1	0	0	0	9	30	39	30.8
049N-050N 055W-054W 100yr	1	7	6	1	0	0	0	0	0	0	8	8	29.5
49.5N 54.5W 260km 100yr	3	36	15	21	9	2	0	0	0	11	39	50	30.1
49.5N 54.5W 400km 100yr	3	54	23	31	18	3	1	0	0	22	57	79	30.0
049N-050N 055W-054W 50yr	0	4	4	0	0	0	0	0	0	0	4	4	26.9
49.5N 54.5W 260km 50yr	1	18	7	11	4	1	0	0	0	5	19	24	31.1
49.5N 54.5W 400km 50yr	1	31	11	20	9	2	1	0	0	12	32	44	31.2
049N-050N 054W-053W 100yr	1	7	4	3	0	0	0	0	0	0	8	8	27.6
49.5N 53.5W 260km 100yr	3	37	16	21	8	1	0	0	0	9	40	49	30.8
49.5N 53.5W 400km 100yr	3	53	24	29	16	4	1	0	0	21	56	77	30.4
049N-050N 054W-053W 50yr	0	3	3	0	0	0	0	0	0	0	3	3	32.3
49.5N 53.5W 260km 50yr	1	19	8	11	4	0	0	0	0	4	20	24	32.0
49.5N 53.5W 400km 50yr	1	29	12	17	9	3	1	0	0	13	30	43	31.7
049N-050N 053W-052W 100yr	1	11	4	7	0	0	0	0	0	0	12	12	30.8
49.5N 52.5W 260km 100yr	2	39	17	22	8	0	0	0	0	8	41	49	30.2
49.5N 52.5W 400km 100yr	4	51	21	30	19	4	1	0	0	24	55	79	31.3
049N-050N 053W-052W 50yr	0	7	4	3	0	0	0	0	0	0	7	7	30.1
49.5N 52.5W 260km 50yr	0	20	9	11	5	0	0	0	0	5	20	25	31.1
49.5N 52.5W 400km 50yr	1	28	10	18	10	3	1	0	0	14	29	43	32.9
049N-050N 052W-051W 100yr	0	7	2	5	3	0	0	0	0	3	7	10	32.0
49.5N 51.5W 260km 100yr	1	36	19	17	9	1	0	0	0	10	37	47	30.4
49.5N 51.5W 400km 100yr	4	55	23	32	17	4	1	0	0	22	59	81	31.4
049N-050N 052W-051W 50yr	0	5	2	3	2	0	0	0	0	2	5	7	33.2
49.5N 51.5W 260km 50yr	0	18	10	8	6	1	0	0	0	7	18	25	31.0
49.5N 51.5W 400km 50yr	1	30	11	19	9	3	1	0	0	13	31	44	32.5
049N-050N 051W-050W 100yr	0	8	3	5	2	0	0	0	0	2	8	10	34.6
49.5N 50.5W 260km 100yr	1	34	17	17	10	1	1	0	0	12	35	47	30.8
49.5N 50.5W 400km 100yr	3	57	25	32	19	3	1	0	0	23	60	83	31.5
049N-050N 051W-050W 50yr	0	6	3	3	2	0	0	0	0	2	6	8	35.9
49.5N 50.5W 260km 50yr	0	18	9	9	7	1	1	0	0	9	18	27	32.1
49.5N 50.5W 400km 50yr	0	31	11	20	11	2	1	0	0	14	31	45	32.8

Cell or Centre Radius	TD	TS	G	S	S1	S2	S3	S4	S5	H	<H	All	Spd
049N-050N 050W-049W 100yr	0	9	3	6	1	0	0	0	0	1	9	10	29.2
49.5N 49.5W 260km 100yr	1	34	17	17	12	1	0	0	0	13	35	48	31.4
49.5N 49.5W 400km 100yr	2	55	24	31	21	2	1	0	0	24	57	81	30.3
049N-050N 050W-049W 50yr	0	6	2	4	1	0	0	0	0	1	6	7	31.4
49.5N 49.5W 260km 50yr	0	18	11	7	9	1	0	0	0	10	18	28	32.5
49.5N 49.5W 400km 50yr	0	32	11	21	13	2	1	0	0	16	32	48	31.3
049N-050N 049W-048W 100yr	0	10	5	5	0	0	0	0	0	0	10	10	25.9
49.5N 48.5W 260km 100yr	2	31	16	15	15	1	0	0	0	16	33	49	32.2
49.5N 48.5W 400km 100yr	2	52	24	28	21	2	1	0	0	24	54	78	30.4
049N-050N 049W-048W 50yr	0	5	1	4	0	0	0	0	0	0	5	5	29.2
49.5N 48.5W 260km 50yr	0	17	9	8	10	1	0	0	0	11	17	28	33.4
49.5N 48.5W 400km 50yr	0	30	11	19	13	2	1	0	0	16	30	46	30.4
049N-050N 048W-047W 100yr	0	9	5	4	2	1	0	0	0	3	9	12	27.4
49.5N 47.5W 260km 100yr	2	27	14	13	15	1	0	0	0	16	29	45	33.2
49.5N 47.5W 400km 100yr	2	53	23	30	19	2	1	0	0	22	55	77	30.4
049N-050N 048W-047W 50yr	0	3	1	2	1	1	0	0	0	2	3	5	31.6
49.5N 47.5W 260km 50yr	0	14	7	7	11	1	0	0	0	12	14	26	34.2
49.5N 47.5W 400km 50yr	0	33	13	20	12	2	1	0	0	15	33	48	30.5
049N-050N 047W-046W 100yr	0	6	3	3	3	1	0	0	0	4	6	10	33.9
49.5N 46.5W 260km 100yr	2	29	13	16	14	1	0	0	0	15	31	46	33.1
49.5N 46.5W 400km 100yr	2	49	26	23	20	1	1	0	0	22	51	73	30.5
049N-050N 047W-046W 50yr	0	1	0	1	2	1	0	0	0	3	1	4	41.1
49.5N 46.5W 260km 50yr	0	15	6	9	10	1	0	0	0	11	15	26	34.5
49.5N 46.5W 400km 50yr	0	30	14	16	13	1	1	0	0	15	30	45	30.5
049N-050N 046W-045W 100yr	0	7	4	3	7	0	0	0	0	7	7	14	35.1
49.5N 45.5W 260km 100yr	1	30	13	17	13	1	0	0	0	14	31	45	32.9
49.5N 45.5W 400km 100yr	2	48	23	25	20	2	0	0	0	22	50	72	31.4
049N-050N 046W-045W 50yr	0	1	0	1	5	0	0	0	0	5	1	6	37.1
49.5N 45.5W 260km 50yr	0	17	6	11	9	1	0	0	0	10	17	27	34.2
49.5N 45.5W 400km 50yr	0	30	13	17	15	2	0	0	0	17	30	47	31.2

050°N to 051°N

050N-051N 070W-069W 100yr	0	1	1	0	0	0	0	0	0	0	1	1	35.7
50.5N 69.5W 260km 100yr	3	4	2	2	0	0	0	0	0	0	7	7	32.4
50.5N 69.5W 400km 100yr	8	9	6	3	0	1	0	0	0	1	17	18	33.3
050N-051N 070W-069W 50yr	0	1	1	0	0	0	0	0	0	0	1	1	35.7
50.5N 69.5W 260km 50yr	2	4	2	2	0	0	0	0	0	0	6	6	33.8
50.5N 69.5W 400km 50yr	3	7	4	3	0	1	0	0	0	1	10	11	36.1
050N-051N 069W-068W 100yr	0	1	1	0	0	0	0	0	0	0	1	1	35.7
50.5N 68.5W 260km 100yr	3	5	3	2	1	0	0	0	0	1	8	9	31.9
50.5N 68.5W 400km 100yr	8	10	7	3	1	1	0	0	0	2	18	20	33.4
050N-051N 069W-068W 50yr	0	1	1	0	0	0	0	0	0	0	1	1	35.7
50.5N 68.5W 260km 50yr	2	4	2	2	1	0	0	0	0	1	6	7	34.1
50.5N 68.5W 400km 50yr	3	7	4	3	1	1	0	0	0	2	10	12	36.8

Cell or Centre Radius	TD	TS	G	S	S1	S2	S3	S4	S5	H	<H	All	Spd
050N-051N 068W-067W 100yr	1	1	1	0	0	0	0	0	0	0	2	2	26.3
50.5N 67.5W 260km 100yr	3	5	3	2	0	1	0	0	0	1	8	9	35.0
50.5N 67.5W 400km 100yr	9	14	10	4	2	1	0	0	0	3	23	26	30.5
050N-051N 068W-067W 50yr	1	1	1	0	0	0	0	0	0	0	2	2	26.3
50.5N 67.5W 260km 50yr	1	4	2	2	0	1	0	0	0	1	5	6	33.2
50.5N 67.5W 400km 50yr	3	8	4	4	2	1	0	0	0	3	11	14	35.3
050N-051N 067W-066W 100yr	1	2	1	1	0	0	0	0	0	0	3	3	30.3
50.5N 66.5W 260km 100yr	4	6	3	3	0	1	0	0	0	1	10	11	34.7
50.5N 66.5W 400km 100yr	8	17	12	5	2	1	0	0	0	3	25	28	30.3
050N-051N 067W-066W 50yr	1	2	1	1	0	0	0	0	0	0	3	3	30.3
50.5N 66.5W 260km 50yr	1	5	2	3	0	1	0	0	0	1	6	7	34.3
50.5N 66.5W 400km 50yr	3	9	4	5	2	1	0	0	0	3	12	15	34.0
050N-051N 066W-065W 100yr	2	2	1	1	1	0	0	0	0	1	4	5	32.6
50.5N 65.5W 260km 100yr	4	8	5	3	2	1	0	0	0	3	12	15	31.4
50.5N 65.5W 400km 100yr	8	19	14	5	2	1	0	0	0	3	27	30	31.3
050N-051N 066W-065W 50yr	0	2	1	1	1	0	0	0	0	1	2	3	37.0
50.5N 65.5W 260km 50yr	1	5	2	3	2	1	0	0	0	3	6	9	32.1
50.5N 65.5W 400km 50yr	3	11	7	4	2	1	0	0	0	3	14	17	35.4
050N-051N 065W-064W 100yr	1	2	1	1	0	0	0	0	0	0	3	3	30.9
50.5N 64.5W 260km 100yr	5	10	7	3	2	1	0	0	0	3	15	18	28.5
50.5N 64.5W 400km 100yr	7	23	13	10	1	2	0	0	0	3	30	33	31.5
050N-051N 065W-064W 50yr	0	2	1	1	0	0	0	0	0	0	2	2	32.4
50.5N 64.5W 260km 50yr	1	4	1	3	2	1	0	0	0	3	5	8	30.9
50.5N 64.5W 400km 50yr	2	15	7	8	1	2	0	0	0	3	17	20	35.4
050N-051N 064W-063W 100yr	1	1	0	1	0	0	0	0	0	0	2	2	43.4
50.5N 63.5W 260km 100yr	5	12	9	3	3	0	0	0	0	3	17	20	28.4
50.5N 63.5W 400km 100yr	6	27	16	11	4	3	0	0	0	7	33	40	29.0
050N-051N 064W-063W 50yr	0	1	0	1	0	0	0	0	0	0	1	1	24.8
50.5N 63.5W 260km 50yr	1	6	3	3	3	0	0	0	0	3	7	10	30.4
50.5N 63.5W 400km 50yr	1	16	8	8	2	2	0	0	0	4	17	21	31.0
050N-051N 063W-062W 100yr	1	4	1	3	0	0	0	0	0	0	5	5	38.1
50.5N 62.5W 260km 100yr	4	14	9	5	3	0	0	0	0	3	18	21	29.7
50.5N 62.5W 400km 100yr	5	33	19	14	8	2	0	0	0	10	38	48	28.0
050N-051N 063W-062W 50yr	0	3	0	3	0	0	0	0	0	0	3	3	32.0
50.5N 62.5W 260km 50yr	0	8	4	4	3	0	0	0	0	3	8	11	32.2
50.5N 62.5W 400km 50yr	1	20	9	11	4	1	0	0	0	5	21	26	29.6
050N-051N 062W-061W 100yr	1	5	2	3	0	0	0	0	0	0	6	6	33.4
50.5N 61.5W 260km 100yr	4	16	8	8	2	1	0	0	0	3	20	23	29.4
50.5N 61.5W 400km 100yr	5	36	19	17	11	2	0	0	0	13	41	54	28.9
050N-051N 062W-061W 50yr	0	3	0	3	0	0	0	0	0	0	3	3	31.9
50.5N 61.5W 260km 50yr	0	10	4	6	2	0	0	0	0	2	10	12	30.5
50.5N 61.5W 400km 50yr	1	20	8	12	6	1	0	0	0	7	21	28	30.6

Cell or Centre Radius	TD	TS	G	S	S1	S2	S3	S4	S5	H	<H	All	Spd
050N-051N 061W-060W 100yr	0	2	1	1	0	0	0	0	0	0	2	2	20.4
50.5N 60.5W 260km 100yr	4	20	10	10	5	1	0	0	0	6	24	30	28.0
50.5N 60.5W 400km 100yr	4	36	19	17	12	2	0	0	0	14	40	54	29.2
050N-051N 061W-060W 50yr	0	1	0	1	0	0	0	0	0	0	1	1	24.3
50.5N 60.5W 260km 50yr	0	13	5	8	3	0	0	0	0	3	13	16	27.2
50.5N 60.5W 400km 50yr	0	21	9	12	6	1	0	0	0	7	21	28	30.9
050N-051N 060W-059W 100yr	0	3	2	1	0	0	0	0	0	0	3	3	31.1
50.5N 59.5W 260km 100yr	3	25	13	12	6	1	0	0	0	7	28	35	28.5
50.5N 59.5W 400km 100yr	3	37	20	17	11	2	0	0	0	13	40	53	28.4
050N-051N 060W-059W 50yr	0	2	1	1	0	0	0	0	0	0	2	2	38.5
50.5N 59.5W 260km 50yr	0	16	6	10	3	0	0	0	0	3	16	19	28.1
50.5N 59.5W 400km 50yr	0	20	9	11	5	1	0	0	0	6	20	26	28.8
050N-051N 059W-058W 100yr	1	3	2	1	0	0	0	0	0	0	4	4	31.6
50.5N 58.5W 260km 100yr	3	26	12	14	8	1	0	0	0	9	29	38	29.0
50.5N 58.5W 400km 100yr	3	43	21	22	10	2	0	0	0	12	46	58	28.5
050N-051N 059W-058W 50yr	1	1	1	0	0	0	0	0	0	0	2	2	30.6
50.5N 58.5W 260km 50yr	0	15	5	10	4	0	0	0	0	4	15	19	29.3
50.5N 58.5W 400km 50yr	0	24	10	14	4	1	0	0	0	5	24	29	28.7
050N-051N 058W-057W 100yr	2	6	3	3	1	1	0	0	0	2	8	10	31.0
50.5N 57.5W 260km 100yr	3	23	12	11	8	1	0	0	0	9	26	35	28.7
50.5N 57.5W 400km 100yr	3	45	22	23	10	2	0	0	0	[illegible]	48	60	28.9
050N-051N 058W-057W 50yr	2	3	1	2	0	0	0	0	0	0	5	5	31.5
50.5N 57.5W 260km 50yr	0	13	6	7	4	0	0	0	0	4	13	17	29.1
50.5N 57.5W 400km 50yr	0	25	10	15	3	1	0	0	0	4	25	29	29.6
050N-051N 057W-056W 100yr	2	6	4	2	2	1	0	0	0	3	8	11	31.8
50.5N 56.5W 260km 100yr	3	28	13	15	7	1	0	0	0	8	31	39	29.5
50.5N 56.5W 400km 100yr	2	47	23	24	13	2	0	0	0	15	49	64	29.2
050N-051N 057W-056W 50yr	1	2	1	1	1	0	0	0	0	1	3	4	28.7
50.5N 56.5W 260km 50yr	1	14	6	8	4	0	0	0	0	4	15	19	30.3
50.5N 56.5W 400km 50yr	0	26	10	16	5	1	0	0	0	6	26	32	29.9
050N-051N 056W-055W 100yr	2	10	5	5	3	1	0	0	0	4	12	16	32.0
50.5N 55.5W 260km 100yr	3	28	12	16	8	1	0	0	0	9	31	40	29.7
50.5N 55.5W 400km 100yr	1	49	23	26	12	2	0	0	0	14	50	64	28.5
050N-051N 056W-055W 50yr	1	4	1	3	2	0	0	0	0	2	5	7	32.5
50.5N 55.5W 260km 50yr	1	14	6	8	4	0	0	0	0	4	15	19	29.5
50.5N 55.5W 400km 50yr	0	28	12	16	5	1	0	0	0	6	28	34	29.4
050N-051N 055W-054W 100yr	0	8	5	3	3	0	0	0	0	3	8	11	28.4
50.5N 54.5W 260km 100yr	3	32	13	19	8	1	0	0	0	9	35	44	30.3
50.5N 54.5W 400km 100yr	2	48	23	25	12	2	0	0	0	14	50	64	28.8
050N-051N 055W-054W 50yr	0	4	2	2	2	0	0	0	0	2	4	6	29.1
50.5N 54.5W 260km 50yr	1	17	7	10	4	0	0	0	0	4	18	22	30.2
50.5N 54.5W 400km 50yr	1	26	11	15	6	1	0	0	0	7	27	34	30.6

Cell or Centre Radius	TD	TS	G	S	S1	S2	S3	S4	S5	H	<H	All	Spd
050N-051N 054W-053W 100yr	0	6	4	2	3	0	0	0	0	3	6	9	27.3
50.5N 53.5W 260km 100yr	3	31	13	18	8	1	0	0	0	9	34	43	30.7
50.5N 53.5W 400km 100yr	3	50	21	29	12	2	0	0	0	14	53	67	30.0
050N-051N 054W-053W 50yr	0	3	2	1	2	0	0	0	0	2	3	5	27.4
50.5N 53.5W 260km 50yr	1	15	6	9	4	0	0	0	0	4	16	20	31.2
50.5N 53.5W 400km 50yr	1	26	10	16	7	1	0	0	0	8	27	35	31.0
050N-051N 053W-052W 100yr	1	7	4	3	0	0	0	0	0	0	8	8	30.7
50.5N 52.5W 260km 100yr	3	34	16	18	8	1	0	0	0	9	37	46	30.5
50.5N 52.5W 400km 100yr	3	49	22	27	14	3	0	0	0	17	52	69	30.3
050N-051N 053W-052W 50yr	0	3	3	0	0	0	0	0	0	0	3	3	31.7
50.5N 52.5W 260km 50yr	1	17	7	10	5	0	0	0	0	5	18	23	31.1
50.5N 52.5W 400km 50yr	1	26	11	15	7	2	0	0	0	9	27	36	31.7
050N-051N 052W-051W 100yr	1	5	4	1	1	0	0	0	0	1	6	7	32.9
50.5N 51.5W 260km 100yr	2	32	15	17	8	0	0	0	0	8	34	42	29.0
50.5N 51.5W 400km 100yr	3	49	23	26	14	3	1	0	0	18	52	70	30.4
050N-051N 052W-051W 50yr	0	2	2	0	0	0	0	0	0	0	2	2	33.2
50.5N 51.5W 260km 50yr	0	19	8	11	5	0	0	0	0	5	19	24	30.5
50.5N 51.5W 400km 50yr	1	26	12	14	8	2	1	0	0	11	27	38	31.5
050N-051N 051W-050W 100yr	1	4	4	0	3	0	0	0	0	3	5	8	36.4
50.5N 50.5W 260km 100yr	1	33	17	16	8	0	0	0	0	8	34	42	28.2
50.5N 50.5W 400km 100yr	4	49	22	27	17	3	1	0	0	21	53	74	31.2
050N-051N 051W-050W 50yr	0	3	3	0	2	0	0	0	0	2	3	5	38.5
50.5N 50.5W 260km 50yr	0	18	9	9	5	0	0	0	0	5	18	23	29.4
50.5N 50.5W 400km 50yr	1	25	11	14	10	2	1	0	0	13	26	39	31.4
050N-051N 050W-049W 100yr	1	6	5	1	3	0	0	0	0	3	7	10	36.0
50.5N 49.5W 260km 100yr	1	35	16	19	8	1	0	0	0	9	36	45	29.4
50.5N 49.5W 400km 100yr	3	46	22	24	18	3	1	0	0	22	49	71	31.0
050N-051N 050W-049W 50yr	0	5	4	1	3	0	0	0	0	3	5	8	37.5
50.5N 49.5W 260km 50yr	0	20	10	10	6	1	0	0	0	7	20	27	30.3
50.5N 49.5W 400km 50yr	0	24	11	13	11	2	1	0	0	14	24	38	31.7
050N-051N 049W-048W 100yr	0	8	4	4	1	0	0	0	0	1	8	9	32.3
50.5N 48.5W 260km 100yr	1	30	15	15	11	1	0	0	0	12	31	43	30.5
50.5N 48.5W 400km 100yr	3	46	21	25	20	1	1	0	0	22	49	71	30.6
050N-051N 049W-048W 50yr	0	6	3	3	1	0	0	0	0	1	6	7	34.9
50.5N 48.5W 260km 50yr	0	16	8	8	8	1	0	0	0	9	16	25	30.9
50.5N 48.5W 400km 50yr	0	26	11	15	13	1	1	0	0	15	26	41	31.4
050N-051N 048W-047W 100yr	0	8	4	4	0	0	0	0	0	0	8	8	31.5
50.5N 47.5W 260km 100yr	1	29	15	14	13	1	0	0	0	14	30	44	31.2
50.5N 47.5W 400km 100yr	2	47	21	26	21	1	0	0	0	22	49	71	30.6
050N-051N 048W-047W 50yr	0	6	3	3	0	0	0	0	0	0	6	6	32.9
50.5N 47.5W 260km 50yr	0	15	7	8	9	1	0	0	0	10	15	25	31.8
50.5N 47.5W 400km 50yr	0	25	11	14	15	1	0	0	0	16	25	41	31.3

Cell or Centre Radius	TD	TS	G	S	S1	S2	S3	S4	S5	H	<H	All	Spd
050N-051N 047W-046W 100yr	0	8	4	4	3	1	0	0	0	4	8	12	33.8
50.5N 46.5W 260km 100yr	1	26	13	13	13	1	0	0	0	14	27	41	32.0
50.5N 46.5W 400km 100yr	2	44	21	23	19	1	0	0	0	20	46	66	31.0
050N-051N 047W-046W 50yr	0	5	3	2	2	1	0	0	0	3	5	8	37.9
50.5N 46.5W 260km 50yr	0	14	7	7	10	1	0	0	0	11	14	25	32.3
50.5N 46.5W 400km 50yr	0	25	12	13	14	1	0	0	0	15	25	40	31.3
050N-051N 046W-045W 100yr	0	4	2	2	3	1	0	0	0	4	4	8	32.2
50.5N 45.5W 260km 100yr	2	29	14	15	14	1	0	0	0	15	31	46	32.0
50.5N 45.5W 400km 100yr	2	43	22	21	18	1	0	0	0	19	45	64	30.7
050N-051N 046W-045W 50yr	0	2	1	1	2	1	0	0	0	3	2	5	37.7
50.5N 45.5W 260km 50yr	0	16	7	9	10	1	0	0	0	11	16	27	32.4
50.5N 45.5W 400km 50yr	0	26	12	14	13	1	0	0	0	14	26	40	31.0

051°N to 052°N

051N-052N 070W-069W 100yr	1	0	0	0	0	0	0	0	0	0	1	1	36.0
51.5N 69.5W 260km 100yr	2	2	2	0	0	0	0	0	0	0	4	4	32.4
51.5N 69.5W 400km 100yr	5	6	3	3	1	0	0	0	0	1	11	12	33.4
051N-052N 070W-069W 50yr	1	0	0	0	0	0	0	0	0	0	1	1	36.0
51.5N 69.5W 260km 50yr	2	2	2	0	0	0	0	0	0	0	4	4	32.4
51.5N 69.5W 400km 50yr	2	5	2	3	1	0	0	0	0	1	7	8	33.2
051N-052N 069W-068W 100yr	1	0	0	0	0	0	0	0	0	0	1	1	36.0
51.5N 68.5W 260km 100yr	3	3	2	1	1	0	0	0	0	1	6	7	32.4
51.5N 68.5W 400km 100yr	7	7	4	3	0	1	0	0	0	1	14	15	35.5
051N-052N 069W-068W 50yr	1	0	0	0	0	0	0	0	0	0	1	1	36.0
51.5N 68.5W 260km 50yr	2	3	2	1	1	0	0	0	0	1	5	6	33.8
51.5N 68.5W 400km 50yr	3	6	3	3	0	1	0	0	0	1	9	10	36.8
051N-052N 068W-067W 100yr	0	0	0	0	0	0	0	0	0	0	0	0	0.0
51.5N 67.5W 260km 100yr	3	4	3	1	1	0	0	0	0	1	7	8	32.1
51.5N 67.5W 400km 100yr	7	10	6	4	1	1	0	0	0	2	17	19	35.2
051N-052N 068W-067W 50yr	0	0	0	0	0	0	0	0	0	0	0	0	0.0
51.5N 67.5W 260km 50yr	2	3	2	1	1	0	0	0	0	1	5	6	33.8
51.5N 67.5W 400km 50yr	3	7	3	4	1	1	0	0	0	2	10	12	36.4
051N-052N 067W-066W 100yr	0	0	0	0	0	0	0	0	0	0	0	0	0.0
51.5N 66.5W 260km 100yr	3	4	3	1	1	0	0	0	0	1	7	8	32.1
51.5N 66.5W 400km 100yr	6	11	8	3	2	1	0	0	0	3	17	20	30.0
051N-052N 067W-066W 50yr	0	0	0	0	0	0	0	0	0	0	0	0	0.0
51.5N 66.5W 260km 50yr	2	3	2	1	1	0	0	0	0	1	5	6	33.8
51.5N 66.5W 400km 50yr	2	5	2	3	2	1	0	0	0	3	7	10	32.6
051N-052N 066W-065W 100yr	0	1	1	0	1	0	0	0	0	1	1	2	36.2
51.5N 65.5W 260km 100yr	4	5	2	3	1	0	0	0	0	1	9	10	34.4
51.5N 65.5W 400km 100yr	6	12	9	3	2	1	0	0	0	3	18	21	28.7
051N-052N 066W-065W 50yr	0	1	1	0	1	0	0	0	0	1	1	2	36.2
51.5N 65.5W 260km 50yr	2	4	1	3	1	0	0	0	0	1	6	7	32.5
51.5N 65.5W 400km 50yr	2	5	2	3	2	1	0	0	0	3	7	10	31.4

Cell or Centre Radius	TD	TS	G	S	S1	S2	S3	S4	S5	H	<H	All	Spd
051N-052N 065W-064W 100yr	1	2	1	1	0	0	0	0	0	0	3	3	30.9
51.5N 64.5W 260km 100yr	3	8	4	4	1	0	0	0	0	1	11	12	31.7
51.5N 64.5W 400km 100yr	6	15	11	4	2	1	0	0	0	3	21	24	29.2
051N-052N 065W-064W 50yr	0	2	1	1	0	0	0	0	0	0	2	2	32.4
51.5N 64.5W 260km 50yr	1	5	1	4	1	0	0	0	0	1	6	7	31.7
51.5N 64.5W 400km 50yr	2	8	4	4	2	1	0	0	0	3	10	13	31.6
051N-052N 064W-063W 100yr	1	2	1	1	0	0	0	0	0	0	3	3	29.0
51.5N 63.5W 260km 100yr	2	10	6	4	1	0	0	0	0	1	12	13	28.7
51.5N 63.5W 400km 100yr	6	16	11	5	2	1	0	0	0	3	22	25	29.2
051N-052N 064W-063W 50yr	0	2	1	1	0	0	0	0	0	0	2	2	29.6
51.5N 63.5W 260km 50yr	0	5	1	4	1	0	0	0	0	1	5	6	31.4
51.5N 63.5W 400km 50yr	2	9	5	4	2	1	0	0	0	3	11	14	31.5
051N-052N 063W-062W 100yr	0	1	1	0	0	0	0	0	0	0	1	1	15.9
51.5N 62.5W 260km 100yr	2	10	5	5	1	0	0	0	0	1	12	13	30.3
51.5N 62.5W 400km 100yr	4	20	10	10	6	1	0	0	0	7	24	31	28.2
051N-052N 063W-062W 50yr	0	1	1	0	0	0	0	0	0	0	1	1	15.9
51.5N 62.5W 260km 50yr	0	6	1	5	1	0	0	0	0	1	6	7	33.7
51.5N 62.5W 400km 50yr	1	12	4	8	5	0	0	0	0	5	13	18	28.9
051N-052N 062W-061W 100yr	0	4	2	2	0	0	0	0	0	0	4	4	29.9
51.5N 61.5W 260km 100yr	2	12	7	5	0	0	0	0	0	0	14	14	30.5
51.5N 61.5W 400km 100yr	4	23	12	11	7	1	0	0	0	8	27	35	28.5
051N-052N 062W-061W 50yr	0	3	1	2	0	0	0	0	0	0	3	3	29.0
51.5N 61.5W 260km 50yr	0	7	2	5	0	0	0	0	0	0	7	7	31.0
51.5N 61.5W 400km 50yr	0	13	5	8	5	0	0	0	0	5	13	18	29.1
051N-052N 061W-060W 100yr	0	3	0	3	0	0	0	0	0	0	3	3	31.9
51.5N 60.5W 260km 100yr	5	15	7	8	0	0	0	0	0	0	20	20	28.8
51.5N 60.5W 400km 100yr	4	28	15	13	10	1	0	0	0	11	32	43	28.5
051N-052N 061W-060W 50yr	0	3	0	3	0	0	0	0	0	0	3	3	31.9
51.5N 60.5W 260km 50yr	2	9	3	6	0	0	0	0	0	0	11	11	30.3
51.5N 60.5W 400km 50yr	0	16	6	10	7	0	0	0	0	7	16	23	29.6
051N-052N 060W-059W 100yr	0	3	1	2	0	0	0	0	0	0	3	3	29.6
51.5N 59.5W 260km 100yr	3	18	8	10	2	1	0	0	0	3	21	24	29.1
51.5N 59.5W 400km 100yr	5	30	15	15	11	1	0	0	0	12	35	47	28.7
051N-052N 060W-059W 50yr	0	2	0	2	0	0	0	0	0	0	2	2	36.2
51.5N 59.5W 260km 50yr	1	10	3	7	1	0	0	0	0	1	11	12	29.6
51.5N 59.5W 400km 50yr	0	18	7	11	6	0	0	0	0	6	18	24	29.0
051N-052N 059W-058W 100yr	0	2	1	1	0	0	0	0	0	0	2	2	26.4
51.5N 58.5W 260km 100yr	4	20	10	10	4	1	0	0	0	5	24	29	29.7
51.5N 58.5W 400km 100yr	4	34	19	15	9	1	0	0	0	10	38	48	28.3
051N-052N 059W-058W 50yr	0	2	1	1	0	0	0	0	0	0	2	2	26.4
51.5N 58.5W 260km 50yr	1	11	3	8	2	0	0	0	0	2	12	14	29.7
51.5N 58.5W 400km 50yr	0	19	8	11	4	0	0	0	0	4	19	23	28.3

Cell or Centre Radius	TD	TS	G	S	S1	S2	S3	S4	S5	H	<H	All	Spd
051N-052N 058W-057W 100yr	1	4	1	3	0	0	0	0	0	0	5	5	25.7
51.5N 57.5W 260km 100yr	2	21	9	12	5	1	0	0	0	6	23	29	29.2
51.5N 57.5W 400km 100yr	4	40	20	20	7	2	0	0	0	9	44	53	28.9
051N-052N 058W-057W 50yr	1	3	1	2	0	0	0	0	0	0	4	4	28.7
51.5N 57.5W 260km 50yr	1	13	4	9	3	0	0	0	0	3	14	17	29.6
51.5N 57.5W 400km 50yr	0	22	10	12	3	1	0	0	0	4	22	26	28.7
051N-052N 057W-056W 100yr	2	5	1	4	0	0	0	0	0	0	7	7	27.8
51.5N 56.5W 260km 100yr	2	22	10	12	5	1	0	0	0	6	24	30	29.6
51.5N 56.5W 400km 100yr	4	40	21	19	8	2	0	0	0	10	44	54	28.5
051N-052N 057W-056W 50yr	2	3	1	2	0	0	0	0	0	0	5	5	29.4
51.5N 56.5W 260km 50yr	1	11	4	7	3	0	0	0	0	3	12	15	30.6
51.5N 56.5W 400km 50yr	0	21	10	11	3	1	0	0	0	4	21	25	28.9
051N-052N 056W-055W 100yr	2	7	2	5	0	1	0	0	0	1	9	10	35.1
51.5N 55.5W 260km 100yr	3	23	11	12	5	1	0	0	0	6	26	32	30.0
51.5N 55.5W 400km 100yr	4	39	17	22	11	2	0	0	0	13	43	56	28.7
051N-052N 056W-055W 50yr	1	3	0	3	0	0	0	0	0	0	4	4	33.9
51.5N 55.5W 260km 50yr	1	10	5	5	3	0	0	0	0	3	11	14	29.9
51.5N 55.5W 400km 50yr	1	22	8	14	5	1	0	0	0	6	23	29	29.7
051N-052N 055W-054W 100yr	1	9	4	5	0	1	0	0	0	1	10	11	29.4
51.5N 54.5W 260km 100yr	4	25	13	12	4	1	0	0	0	5	29	34	29.6
51.5N 54.5W 400km 100yr	4	39	18	21	12	1	0	0	0	13	43	56	28.9
051N-052N 055W-054W 50yr	0	4	1	3	0	0	0	0	0	0	4	4	31.5
51.5N 54.5W 260km 50yr	2	11	6	5	2	0	0	0	0	2	13	15	29.8
51.5N 54.5W 400km 50yr	1	21	8	13	7	0	0	0	0	7	22	29	29.7
051N-052N 054W-053W 100yr	1	8	5	3	3	0	0	0	0	3	9	12	28.2
51.5N 53.5W 260km 100yr	4	25	13	12	6	1	0	0	0	7	29	36	29.3
51.5N 53.5W 400km 100yr	4	42	18	24	10	1	0	0	0	11	46	57	29.5
051N-052N 054W-053W 50yr	0	4	2	2	2	0	0	0	0	2	4	6	28.4
51.5N 53.5W 260km 50yr	2	11	6	5	3	0	0	0	0	3	13	16	29.7
51.5N 53.5W 400km 50yr	1	23	9	14	6	0	0	0	0	6	24	30	30.7
051N-052N 053W-052W 100yr	0	9	6	3	3	0	0	0	0	3	9	12	26.2
51.5N 52.5W 260km 100yr	3	27	14	13	7	1	0	0	0	8	30	38	30.4
51.5N 52.5W 400km 100yr	5	41	18	23	9	1	0	0	0	10	46	56	29.6
051N-052N 053W-052W 50yr	0	4	3	1	2	0	0	0	0	2	4	6	26.0
51.5N 52.5W 260km 50yr	1	11	7	4	5	0	0	0	0	5	12	17	32.1
51.5N 52.5W 400km 50yr	2	22	9	13	5	0	0	0	0	5	24	29	30.2
051N-052N 052W-051W 100yr	0	6	3	3	1	0	0	0	0	1	6	7	25.4
51.5N 51.5W 260km 100yr	2	26	13	13	7	1	0	0	0	8	28	36	29.6
51.5N 51.5W 400km 100yr	5	43	19	24	11	2	0	0	0	13	48	61	29.7
051N-052N 052W-051W 50yr	0	2	1	1	1	0	0	0	0	1	2	3	23.4
51.5N 51.5W 260km 50yr	0	13	7	6	5	0	0	0	0	5	13	18	31.1
51.5N 51.5W 400km 50yr	2	22	9	13	6	1	0	0	0	7	24	31	30.3

Cell or Centre Radius	TD	TS	G	S	S1	S2	S3	S4	S5	H	<H	All	Spd
051N-052N 051W-050W 100yr	0	7	6	1	2	0	0	0	0	2	7	9	23.3
51.5N 50.5W 260km 100yr	2	28	13	15	7	1	0	0	0	8	30	38	29.1
51.5N 50.5W 400km 100yr	4	42	19	23	12	2	0	0	0	14	46	60	29.7
051N-052N 051W-050W 50yr	0	3	2	1	2	0	0	0	0	2	3	5	26.6
51.5N 50.5W 260km 50yr	0	14	7	7	5	0	0	0	0	5	14	19	31.0
51.5N 50.5W 400km 50yr	1	21	9	12	8	1	0	0	0	9	22	31	30.5
051N-052N 050W-049W 100yr	1	4	4	0	2	0	0	0	0	2	5	7	32.1
51.5N 49.5W 260km 100yr	2	29	14	15	8	0	0	0	0	8	31	39	28.8
51.5N 49.5W 400km 100yr	3	42	18	24	17	2	0	0	0	19	45	64	30.4
051N-052N 050W-049W 50yr	0	2	2	0	2	0	0	0	0	2	2	4	36.2
51.5N 49.5W 260km 50yr	0	16	8	8	6	0	0	0	0	6	16	22	30.3
51.5N 49.5W 400km 50yr	0	22	9	13	11	1	0	0	0	12	22	34	31.2
051N-052N 049W-048W 100yr	1	4	3	1	3	0	0	0	0	3	5	8	32.9
51.5N 48.5W 260km 100yr	1	29	15	14	9	1	0	0	0	10	30	40	28.9
51.5N 48.5W 400km 100yr	3	44	21	23	16	2	0	0	0	18	47	65	30.4
051N-052N 049W-048W 50yr	0	3	2	1	3	0	0	0	0	3	3	6	33.5
51.5N 48.5W 260km 50yr	0	15	7	8	7	1	0	0	0	8	15	23	30.7
51.5N 48.5W 400km 50yr	0	21	10	11	11	1	0	0	0	12	21	33	31.1
051N-052N 048W-047W 100yr	1	6	4	2	0	0	0	0	0	0	7	7	31.2
51.5N 47.5W 260km 100yr	1	25	13	12	9	1	0	0	0	10	26	36	29.4
51.5N 47.5W 400km 100yr	3	41	20	21	19	2	0	0	0	21	44	65	31.1
051N-052N 048W-047W 50yr	0	5	3	2	0	0	0	0	0	0	5	5	31.3
51.5N 47.5W 260km 50yr	0	14	7	7	7	1	0	0	0	8	14	22	31.0
51.5N 47.5W 400km 50yr	0	20	10	10	13	1	0	0	0	14	20	34	31.9
051N-052N 047W-046W 100yr	2	7	4	3	1	0	0	0	0	1	9	10	29.7
51.5N 46.5W 260km 100yr	1	25	15	10	11	1	0	0	0	12	26	38	30.1
51.5N 46.5W 400km 100yr	3	43	20	23	18	1	0	0	0	19	46	65	30.3
051N-052N 047W-046W 50yr	1	4	2	2	1	0	0	0	0	1	5	6	30.1
51.5N 46.5W 260km 50yr	0	13	7	6	8	1	0	0	0	9	13	22	31.7
51.5N 46.5W 400km 50yr	0	20	9	11	13	1	0	0	0	14	20	34	30.9
051N-052N 046W-045W 100yr	1	5	3	2	4	0	0	0	0	4	6	10	29.6
51.5N 45.5W 260km 100yr	1	24	13	11	12	1	0	0	0	13	25	38	31.8
51.5N 45.5W 400km 100yr	2	40	20	20	16	1	0	0	0	17	42	59	30.5
051N-052N 046W-045W 50yr	1	3	2	1	3	0	0	0	0	3	4	7	31.4
51.5N 45.5W 260km 50yr	0	13	6	7	9	1	0	0	0	10	13	23	32.5
51.5N 45.5W 400km 50yr	0	21	9	12	12	1	0	0	0	13	21	34	30.9

052°N to 053°N

Cell or Centre Radius	TD	TS	G	S	S1	S2	S3	S4	S5	H	<H	All	Spd
052N-053N 070W-069W 100yr	2	0	0	0	0	0	0	0	0	0	2	2	38.2
52.5N 69.5W 260km 100yr	1	1	1	0	0	0	0	0	0	0	2	2	36.1
52.5N 69.5W 400km 100yr	4	3	2	1	1	0	0	0	0	1	7	8	33.0
052N-053N 070W-069W 50yr	2	0	0	0	0	0	0	0	0	0	2	2	38.2
52.5N 69.5W 260km 50yr	1	1	1	0	0	0	0	0	0	0	2	2	36.1
52.5N 69.5W 400km 50yr	2	3	2	1	1	0	0	0	0	1	5	6	35.3

Cell or Centre Radius	TD	TS	G	S	S1	S2	S3	S4	S5	H	<H	All	Spd
052N-053N 069W-068W 100yr	2	0	0	0	0	0	0	0	0	0	2	2	38.2
52.5N 68.5W 260km 100yr	1	1	1	0	1	0	0	0	0	1	2	3	39.3
52.5N 68.5W 400km 100yr	3	4	3	1	1	0	0	0	0	1	7	8	33.3
052N-053N 069W-068W 50yr	2	0	0	0	0	0	0	0	0	0	2	2	38.2
52.5N 68.5W 260km 50yr	1	1	1	0	1	0	0	0	0	1	2	3	39.3
52.5N 68.5W 400km 50yr	2	3	2	1	1	0	0	0	0	1	5	6	35.3
052N-053N 068W-067W 100yr	0	0	0	0	0	0	0	0	0	0	0	0	0.0
52.5N 67.5W 260km 100yr	1	3	2	1	1	0	0	0	0	1	4	5	36.5
52.5N 67.5W 400km 100yr	4	5	3	2	1	0	0	0	0	1	9	10	34.1
052N-053N 068W-067W 50yr	0	0	0	0	0	0	0	0	0	0	0	0	0.0
52.5N 67.5W 260km 50yr	1	3	2	1	1	0	0	0	0	1	4	5	36.5
52.5N 67.5W 400km 50yr	2	4	2	2	1	0	0	0	0	1	6	7	32.1
052N-053N 067W-066W 100yr	0	0	0	0	0	0	0	0	0	0	0	0	0.0
52.5N 66.5W 260km 100yr	3	2	1	1	1	0	0	0	0	1	5	6	35.4
52.5N 66.5W 400km 100yr	4	8	4	4	1	0	0	0	0	1	12	13	34.1
052N-053N 067W-066W 50yr	0	0	0	0	0	0	0	0	0	0	0	0	0.0
52.5N 66.5W 260km 50yr	2	2	1	1	1	0	0	0	0	1	4	5	36.6
52.5N 66.5W 400km 50yr	2	6	2	4	1	0	0	0	0	1	8	9	32.7
052N-053N 066W-065W 100yr	0	0	0	0	1	0	0	0	0	1	0	1	45.5
52.5N 65.5W 260km 100yr	3	2	1	1	1	0	0	0	0	1	5	6	34.4
52.5N 65.5W 400km 100yr	4	10	6	4	1	0	0	0	0	1	14	15	29.9
052N-053N 066W-065W 50yr	0	0	0	0	1	0	0	0	0	1	0	1	45.5
52.5N 65.5W 260km 50yr	2	2	1	1	1	0	0	0	0	1	4	5	35.4
52.5N 65.5W 400km 50yr	2	6	2	4	1	0	0	0	0	1	8	9	31.2
052N-053N 065W-064W 100yr	0	0	0	0	1	0	0	0	0	1	0	1	45.5
52.5N 64.5W 260km 100yr	2	4	1	3	1	0	0	0	0	1	6	7	34.6
52.5N 64.5W 400km 100yr	4	12	7	5	1	0	0	0	0	1	16	17	30.1
052N-053N 065W-064W 50yr	0	0	0	0	1	0	0	0	0	1	0	1	45.5
52.5N 64.5W 260km 50yr	1	4	1	3	1	0	0	0	0	1	5	6	35.4
52.5N 64.5W 400km 50yr	2	7	2	5	1	0	0	0	0	1	9	10	32.7
052N-053N 064W-063W 100yr	1	1	0	1	0	0	0	0	0	0	2	2	32.9
52.5N 63.5W 260km 100yr	2	6	2	4	1	0	0	0	0	1	8	9	34.6
52.5N 63.5W 400km 100yr	5	12	7	5	2	0	0	0	0	2	17	19	29.0
052N-053N 064W-063W 50yr	0	1	0	1	0	0	0	0	0	0	1	1	37.9
52.5N 63.5W 260km 50yr	0	5	1	4	1	0	0	0	0	1	5	6	31.3
52.5N 63.5W 400km 50yr	3	7	2	5	2	0	0	0	0	2	10	12	30.8
052N-053N 063W-062W 100yr	1	2	1	1	0	0	0	0	0	0	3	3	27.8
52.5N 62.5W 260km 100yr	2	7	2	5	1	0	0	0	0	1	9	10	35.7
52.5N 62.5W 400km 100yr	5	14	8	6	2	0	0	0	0	2	19	21	30.0
052N-053N 063W-062W 50yr	0	2	1	1	0	0	0	0	0	0	2	2	26.9
52.5N 62.5W 260km 50yr	0	6	1	5	1	0	0	0	0	1	6	7	33.4
52.5N 62.5W 400km 50yr	2	8	2	6	2	0	0	0	0	2	10	12	31.3

Cell or Centre Radius	TD	TS	G	S	S1	S2	S3	S4	S5	H	<H	All	Spd
052N-053N 062W-061W 100yr	1	1	1	0	0	0	0	0	0	0	2	2	23.5
52.5N 61.5W 260km 100yr	2	8	3	5	1	0	0	0	0	1	10	11	32.9
52.5N 61.5W 400km 100yr	3	18	9	9	2	1	0	0	0	3	21	24	30.5
052N-053N 062W-061W 50yr	0	1	1	0	0	0	0	0	0	0	1	1	15.9
52.5N 61.5W 260km 50yr	0	6	1	5	1	0	0	0	0	1	6	7	31.9
52.5N 61.5W 400km 50yr	1	9	3	6	2	0	0	0	0	2	10	12	32.2
052N-053N 061W-060W 100yr	0	3	1	2	0	0	0	0	0	0	3	3	23.5
52.5N 60.5W 260km 100yr	3	9	4	5	0	0	0	0	0	0	12	12	30.6
52.5N 60.5W 400km 100yr	3	21	10	11	3	1	0	0	0	4	24	28	29.8
052N-053N 061W-060W 50yr	0	3	1	2	0	0	0	0	0	0	3	3	23.5
52.5N 60.5W 260km 50yr	1	7	2	5	0	0	0	0	0	0	8	8	28.6
52.5N 60.5W 400km 50yr	0	12	4	8	2	0	0	0	0	2	12	14	31.1
052N-053N 060W-059W 100yr	0	3	1	2	0	0	0	0	0	0	3	3	28.8
52.5N 59.5W 260km 100yr	3	11	4	7	0	0	0	0	0	0	14	14	30.3
52.5N 59.5W 400km 100yr	3	24	11	13	6	1	0	0	0	7	27	34	29.1
052N-053N 060W-059W 50yr	0	3	1	2	0	0	0	0	0	0	3	3	28.8
52.5N 59.5W 260km 50yr	1	8	2	6	0	0	0	0	0	0	9	9	30.2
52.5N 59.5W 400km 50yr	0	13	4	9	4	0	0	0	0	4	13	17	30.0
052N-053N 059W-058W 100yr	0	0	0	0	0	0	0	0	0	0	0	0	0.0
52.5N 58.5W 260km 100yr	3	13	5	8	0	1	0	0	0	1	16	17	30.3
52.5N 58.5W 400km 100yr	4	27	12	15	6	1	0	0	0	7	31	38	28.8
052N-053N 059W-058W 50yr	0	0	0	0	0	0	0	0	0	0	0	0	0.0
52.5N 58.5W 260km 50yr	2	8	3	5	0	0	0	0	0	0	10	10	30.5
52.5N 58.5W 400km 50yr	1	14	4	10	4	0	0	0	0	4	15	19	29.4
052N-053N 058W-057W 100yr	1	0	0	0	0	0	0	0	0	0	1	1	22.5
52.5N 57.5W 260km 100yr	4	16	7	9	1	1	0	0	0	2	20	22	30.0
52.5N 57.5W 400km 100yr	4	31	14	17	6	1	0	0	0	7	35	42	28.6
052N-053N 058W-057W 50yr	1	0	0	0	0	0	0	0	0	0	1	1	22.5
52.5N 57.5W 260km 50yr	2	10	3	7	0	0	0	0	0	0	12	12	30.6
52.5N 57.5W 400km 50yr	1	16	6	10	4	0	0	0	0	4	17	21	29.3
052N-053N 057W-056W 100yr	1	3	1	2	0	0	0	0	0	0	4	4	26.2
52.5N 56.5W 260km 100yr	4	19	9	10	4	1	0	0	0	5	23	28	29.4
52.5N 56.5W 400km 100yr	5	32	16	16	6	1	0	0	0	7	37	44	29.4
052N-053N 057W-056W 50yr	1	2	1	1	0	0	0	0	0	0	3	3	30.3
52.5N 56.5W 260km 50yr	2	11	4	7	2	0	0	0	0	2	13	15	29.6
52.5N 56.5W 400km 50yr	1	16	7	9	4	0	0	0	0	4	17	21	29.2
052N-053N 056W-055W 100yr	0	2	0	2	0	0	0	0	0	0	2	2	23.1
52.5N 55.5W 260km 100yr	4	20	10	10	4	1	0	0	0	5	24	29	29.8
52.5N 55.5W 400km 100yr	4	33	16	17	6	1	0	0	0	7	37	44	28.8
052N-053N 056W-055W 50yr	0	0	0	0	0	0	0	0	0	0	0	0	0.0
52.5N 55.5W 260km 50yr	2	11	5	6	2	0	0	0	0	2	13	15	30.4
52.5N 55.5W 400km 50yr	1	17	8	9	3	0	0	0	0	3	18	21	29.6

Cell or Centre Radius	TD	TS	G	S	S1	S2	S3	S4	S5	H	<H	All	Spd
052N-053N 055W-054W 100yr	0	3	1	2	0	1	0	0	0	1	3	4	31.1
52.5N 54.5W 260km 100yr	4	24	12	12	3	1	0	0	0	4	28	32	28.7
52.5N 54.5W 400km 100yr	4	33	16	17	8	1	0	0	0	9	37	46	29.4
052N-053N 055W-054W 50yr	0	1	0	1	0	0	0	0	0	0	1	1	23.7
52.5N 54.5W 260km 50yr	2	10	5	5	2	0	0	0	0	2	12	14	29.5
52.5N 54.5W 400km 50yr	1	17	8	9	5	0	0	0	0	5	18	23	30.7
052N-053N 054W-053W 100yr	1	4	1	3	0	1	0	0	0	1	5	6	32.3
52.5N 53.5W 260km 100yr	4	23	11	12	3	1	0	0	0	4	27	31	28.7
52.5N 53.5W 400km 100yr	5	34	16	18	8	1	0	0	0	9	39	48	30.1
052N-053N 054W-053W 50yr	0	2	0	2	0	0	0	0	0	0	2	2	30.7
52.5N 53.5W 260km 50yr	2	9	4	5	2	0	0	0	0	2	11	13	29.6
52.5N 53.5W 400km 50yr	2	18	9	9	5	0	0	0	0	5	20	25	31.1
052N-053N 053W-052W 100yr	1	8	4	4	1	1	0	0	0	2	9	11	29.5
52.5N 52.5W 260km 100yr	3	22	11	11	4	1	0	0	0	5	25	30	28.1
52.5N 52.5W 400km 100yr	5	36	15	21	8	1	0	0	0	9	41	50	29.7
052N-053N 053W-052W 50yr	0	4	2	2	1	0	0	0	0	1	4	5	30.8
52.5N 52.5W 260km 50yr	0	9	5	4	3	0	0	0	0	3	9	12	29.3
52.5N 52.5W 400km 50yr	2	19	8	11	5	0	0	0	0	5	21	26	30.7
052N-053N 052W-051W 100yr	1	11	5	6	0	0	0	0	0	0	12	12	27.5
52.5N 51.5W 260km 100yr	3	21	11	10	7	1	0	0	0	8	24	32	28.7
52.5N 51.5W 400km 100yr	5	39	17	22	8	1	0	0	0	9	44	53	29.6
052N-053N 052W-051W 50yr	0	4	2	2	0	0	0	0	0	0	4	4	27.6
52.5N 51.5W 260km 50yr	0	8	5	3	5	0	0	0	0	5	8	13	30.0
52.5N 51.5W 400km 50yr	2	21	9	12	6	0	0	0	0	6	23	29	30.6
052N-053N 051W-050W 100yr	0	9	5	4	1	0	0	0	0	1	9	10	24.1
52.5N 50.5W 260km 100yr	3	22	12	10	7	1	0	0	0	8	25	33	29.6
52.5N 50.5W 400km 100yr	3	39	19	20	10	1	0	0	0	11	42	53	29.0
052N-053N 051W-050W 50yr	0	4	1	3	1	0	0	0	0	1	4	5	23.4
52.5N 50.5W 260km 50yr	0	11	6	5	5	0	0	0	0	5	11	16	30.8
52.5N 50.5W 400km 50yr	0	19	10	9	7	0	0	0	0	7	19	26	30.2
052N-053N 050W-049W 100yr	0	4	2	2	1	0	0	0	0	1	4	5	21.8
52.5N 49.5W 260km 100yr	3	24	14	10	7	1	0	0	0	8	27	35	29.1
52.5N 49.5W 400km 100yr	3	35	16	19	11	2	0	0	0	13	38	51	28.7
052N-053N 050W-049W 50yr	0	2	0	2	1	0	0	0	0	1	2	3	24.4
52.5N 49.5W 260km 50yr	0	13	7	6	6	0	0	0	0	6	13	19	30.7
52.5N 49.5W 400km 50yr	0	16	8	8	8	1	0	0	0	9	16	25	30.8
052N-053N 049W-048W 100yr	0	5	3	2	3	0	0	0	0	3	5	8	25.6
52.5N 48.5W 260km 100yr	2	25	14	11	6	1	0	0	0	7	27	34	28.7
52.5N 48.5W 400km 100yr	3	37	18	19	12	2	0	0	0	14	40	54	29.0
052N-053N 049W-048W 50yr	0	3	1	2	3	0	0	0	0	3	3	6	28.0
52.5N 48.5W 260km 50yr	0	13	7	6	6	0	0	0	0	6	13	19	29.8
52.5N 48.5W 400km 50yr	0	16	8	8	8	1	0	0	0	9	16	25	30.7

Cell or Centre Radius	TD	TS	G	S	S1	S2	S3	S4	S5	H	<H	All	Spd
052N-053N 048W-047W 100yr	1	6	2	4	2	0	0	0	0	2	7	9	29.8
52.5N 47.5W 260km 100yr	2	25	13	12	9	0	0	0	0	9	27	36	29.1
52.5N 47.5W 400km 100yr	3	37	17	20	15	2	0	0	0	17	40	57	30.2
052N-053N 048W-047W 50yr	0	5	1	4	2	0	0	0	0	2	5	7	29.6
52.5N 47.5W 260km 50yr	0	13	6	7	8	0	0	0	0	8	13	21	30.8
52.5N 47.5W 400km 50yr	0	17	8	9	10	1	0	0	0	11	17	28	31.5
052N-053N 047W-046W 100yr	1	6	3	3	1	0	0	0	0	1	7	8	27.6
52.5N 46.5W 260km 100yr	1	22	12	10	7	1	0	0	0	8	23	31	29.8
52.5N 46.5W 400km 100yr	3	36	18	18	15	2	0	0	0	17	39	56	30.1
052N-053N 047W-046W 50yr	0	5	2	3	1	0	0	0	0	1	5	6	26.5
52.5N 46.5W 260km 50yr	0	13	6	7	6	1	0	0	0	7	13	20	31.3
52.5N 46.5W 400km 50yr	0	17	8	9	11	1	0	0	0	12	17	29	31.0
052N-053N 046W-045W 100yr	0	5	3	2	2	0	0	0	0	2	5	7	26.3
52.5N 45.5W 260km 100yr	2	25	13	12	7	1	0	0	0	8	27	35	30.0
52.5N 45.5W 400km 100yr	3	38	18	20	15	2	0	0	0	17	41	58	30.5
052N-053N 046W-045W 50yr	0	4	2	2	2	0	0	0	0	2	4	6	27.2
52.5N 45.5W 260km 50yr	0	13	6	7	6	1	0	0	0	7	13	20	31.5
52.5N 45.5W 400km 50yr	0	17	7	10	12	1	0	0	0	13	17	30	31.4

053°N to 054°N

Cell or Centre Radius	TD	TS	G	S	S1	S2	S3	S4	S5	H	<H	All	Spd
053N-054N 070W-069W 100yr	1	0	0	0	0	0	0	0	0	0	1	1	36.0
53.5N 69.5W 260km 100yr	2	0	0	0	0	0	0	0	0	0	2	2	36.3
53.5N 69.5W 400km 100yr	1	1	1	0	1	0	0	0	0	1	2	3	39.9
053N-054N 070W-069W 50yr	1	0	0	0	0	0	0	0	0	0	1	1	36.0
53.5N 69.5W 260km 50yr	2	0	0	0	0	0	0	0	0	0	2	2	36.3
53.5N 69.5W 400km 50yr	1	1	1	0	1	0	0	0	0	1	2	3	39.9
053N-054N 069W-068W 100yr	2	0	0	0	0	0	0	0	0	0	2	2	38.2
53.5N 68.5W 260km 100yr	2	0	0	0	1	0	0	0	0	1	2	3	39.4
53.5N 68.5W 400km 100yr	2	3	2	1	1	0	0	0	0	1	5	6	35.2
053N-054N 069W-068W 50yr	2	0	0	0	0	0	0	0	0	0	2	2	38.2
53.5N 68.5W 260km 50yr	2	0	0	0	1	0	0	0	0	1	2	3	39.4
53.5N 68.5W 400km 50yr	1	3	2	1	1	0	0	0	0	1	4	5	36.7
053N-054N 068W-067W 100yr	1	0	0	0	0	0	0	0	0	0	1	1	36.2
53.5N 67.5W 260km 100yr	2	0	0	0	1	0	0	0	0	1	2	3	39.4
53.5N 67.5W 400km 100yr	3	3	2	1	1	0	0	0	0	1	6	7	33.0
053N-054N 068W-067W 50yr	1	0	0	0	0	0	0	0	0	0	1	1	36.2
53.5N 67.5W 260km 50yr	2	0	0	0	1	0	0	0	0	1	2	3	39.4
53.5N 67.5W 400km 50yr	2	3	2	1	1	0	0	0	0	1	5	6	33.6
053N-054N 067W-066W 100yr	0	0	0	0	0	0	0	0	0	0	0	0	0.0
53.5N 66.5W 260km 100yr	2	1	0	1	1	0	0	0	0	1	3	4	39.0
53.5N 66.5W 400km 100yr	4	3	2	1	1	0	0	0	0	1	7	8	31.3
053N-054N 067W-066W 50yr	0	0	0	0	0	0	0	0	0	0	0	0	0.0
53.5N 66.5W 260km 50yr	2	1	0	1	1	0	0	0	0	1	3	4	39.0
53.5N 66.5W 400km 50yr	2	3	2	1	1	0	0	0	0	1	5	6	32.7

Cell or Centre Radius	TD	TS	G	S	S1	S2	S3	S4	S5	H	<H	All	Spd
053N-054N 066W-065W 100yr	0	0	0	0	1	0	0	0	0	1	0	1	45.5
53.5N 65.5W 260km 100yr	3	2	1	1	1	0	0	0	0	1	5	6	34.5
53.5N 65.5W 400km 100yr	5	5	2	3	1	0	0	0	0	1	10	11	34.8
053N-054N 066W-065W 50yr	0	0	0	0	1	0	0	0	0	1	0	1	45.5
53.5N 65.5W 260km 50yr	2	2	1	1	1	0	0	0	0	1	4	5	35.5
53.5N 65.5W 400km 50yr	2	4	1	3	1	0	0	0	0	1	6	7	33.5
053N-054N 065W-064W 100yr	0	0	0	0	1	0	0	0	0	1	0	1	45.5
53.5N 64.5W 260km 100yr	2	2	1	1	1	0	0	0	0	1	4	5	33.0
53.5N 64.5W 400km 100yr	5	7	2	5	1	0	0	0	0	1	12	13	34.2
053N-054N 065W-064W 50yr	0	0	0	0	1	0	0	0	0	1	0	1	45.5
53.5N 64.5W 260km 50yr	1	2	1	1	1	0	0	0	0	1	3	4	33.9
53.5N 64.5W 400km 50yr	2	6	1	5	1	0	0	0	0	1	8	9	33.2
053N-054N 064W-063W 100yr	0	0	0	0	0	0	0	0	0	0	0	0	0.0
53.5N 63.5W 260km 100yr	1	4	1	3	1	0	0	0	0	1	5	6	31.3
53.5N 63.5W 400km 100yr	4	8	3	5	1	0	0	0	0	1	12	13	33.7
053N-054N 064W-063W 50yr	0	0	0	0	0	0	0	0	0	0	0	0	0.0
53.5N 63.5W 260km 50yr	0	4	1	3	1	0	0	0	0	1	4	5	31.6
53.5N 63.5W 400km 50yr	2	6	1	5	1	0	0	0	0	1	8	9	33.2
053N-054N 063W-062W 100yr	0	1	0	1	0	0	0	0	0	0	1	1	38.1
53.5N 62.5W 260km 100yr	1	5	1	4	1	0	0	0	0	1	6	7	32.7
53.5N 62.5W 400km 100yr	3	9	4	5	1	0	0	0	0	1	12	13	31.7
053N-054N 063W-062W 50yr	0	1	0	1	0	0	0	0	0	0	1	1	38.1
53.5N 62.5W 260km 50yr	0	5	1	4	1	0	0	0	0	1	5	6	33.2
53.5N 62.5W 400km 50yr	1	6	1	5	1	0	0	0	0	1	7	8	32.9
053N-054N 062W-061W 100yr	1	1	1	0	0	0	0	0	0	0	2	2	34.7
53.5N 61.5W 260km 100yr	1	5	1	4	1	0	0	0	0	1	6	7	32.3
53.5N 61.5W 400km 100yr	4	12	5	7	1	0	0	0	0	1	16	17	30.4
053N-054N 062W-061W 50yr	0	1	1	0	0	0	0	0	0	0	1	1	38.3
53.5N 61.5W 260km 50yr	0	5	1	4	1	0	0	0	0	1	5	6	33.0
53.5N 61.5W 400km 50yr	2	8	2	6	1	0	0	0	0	1	10	11	32.2
053N-054N 061W-060W 100yr	1	1	0	1	0	0	0	0	0	0	2	2	26.0
53.5N 60.5W 260km 100yr	1	5	1	4	0	0	0	0	0	0	6	6	30.7
53.5N 60.5W 400km 100yr	3	13	5	8	1	0	0	0	0	1	16	17	30.0
053N-054N 061W-060W 50yr	0	1	0	1	0	0	0	0	0	0	1	1	20.8
53.5N 60.5W 260km 50yr	0	5	1	4	0	0	0	0	0	0	5	5	31.3
53.5N 60.5W 400km 50yr	1	8	2	6	1	0	0	0	0	1	9	10	31.5
053N-054N 060W-059W 100yr	1	4	1	3	0	0	0	0	0	0	5	5	27.7
53.5N 59.5W 260km 100yr	2	8	2	6	0	0	0	0	0	0	10	10	29.7
53.5N 59.5W 400km 100yr	4	16	7	9	2	1	0	0	0	3	20	23	32.6
053N-054N 060W-059W 50yr	0	4	1	3	0	0	0	0	0	0	4	4	26.8
53.5N 59.5W 260km 50yr	1	8	2	6	0	0	0	0	0	0	9	9	29.9
53.5N 59.5W 400km 50yr	2	10	3	7	1	0	0	0	0	1	12	13	31.5

Cell or Centre Radius	TD	TS	G	S	S1	S2	S3	S4	S5	H	<H	All	Spd
053N-054N 059W-058W 100yr	1	2	1	1	0	0	0	0	0	0	3	3	23.6
53.5N 58.5W 260km 100yr	2	10	3	7	0	0	0	0	0	0	12	12	28.6
53.5N 58.5W 400km 100yr	5	19	8	11	1	1	0	0	0	2	24	26	31.2
053N-054N 059W-058W 50yr	0	2	1	1	0	0	0	0	0	0	2	2	19.8
53.5N 58.5W 260km 50yr	1	8	3	5	0	0	0	0	0	0	9	9	29.8
53.5N 58.5W 400km 50yr	2	11	3	8	0	0	0	0	0	0	13	13	31.2
053N-054N 058W-057W 100yr	0	1	1	0	0	0	0	0	0	0	1	1	22.6
53.5N 57.5W 260km 100yr	2	11	4	7	0	0	0	0	0	0	13	13	29.4
53.5N 57.5W 400km 100yr	5	24	12	12	4	1	0	0	0	5	29	34	30.7
053N-054N 058W-057W 50yr	0	1	1	0	0	0	0	0	0	0	1	1	22.6
53.5N 57.5W 260km 50yr	1	8	3	5	0	0	0	0	0	0	9	9	29.8
53.5N 57.5W 400km 50yr	2	14	5	9	2	0	0	0	0	2	16	18	30.3
053N-054N 057W-056W 100yr	0	1	1	0	0	0	0	0	0	0	1	1	22.6
53.5N 56.5W 260km 100yr	3	11	3	8	0	1	0	0	0	1	14	15	28.5
53.5N 56.5W 400km 100yr	4	26	12	14	4	1	0	0	0	5	30	35	29.2
053N-054N 057W-056W 50yr	0	1	1	0	0	0	0	0	0	0	1	1	22.6
53.5N 56.5W 260km 50yr	1	7	2	5	0	0	0	0	0	0	8	8	28.1
53.5N 56.5W 400km 50yr	2	14	5	9	2	0	0	0	0	2	16	18	30.0
053N-054N 056W-055W 100yr	0	1	0	1	0	0	0	0	0	0	1	1	11.2
53.5N 55.5W 260km 100yr	3	15	5	10	0	1	0	0	0	1	18	19	28.8
53.5N 55.5W 400km 100yr	4	28	14	14	4	1	0	0	0	5	32	37	28.8
053N-054N 056W-055W 50yr	0	0	0	0	0	0	0	0	0	0	0	0	0.0
53.5N 55.5W 260km 50yr	1	10	4	6	0	0	0	0	0	0	11	11	29.3
53.5N 55.5W 400km 50yr	2	14	6	8	2	0	0	0	0	2	16	18	30.1
053N-054N 055W-054W 100yr	0	1	0	1	0	0	0	0	0	0	1	1	11.5
53.5N 54.5W 260km 100yr	3	17	8	9	2	1	0	0	0	3	20	23	28.7
53.5N 54.5W 400km 100yr	4	27	13	14	5	1	0	0	0	6	31	37	29.0
053N-054N 055W-054W 50yr	0	0	0	0	0	0	0	0	0	0	0	0	0.0
53.5N 54.5W 260km 50yr	1	7	4	3	1	0	0	0	0	1	8	9	29.6
53.5N 54.5W 400km 50yr	2	14	6	8	3	0	0	0	0	3	16	19	29.6
053N-054N 054W-053W 100yr	0	3	2	1	0	0	0	0	0	0	3	3	26.5
53.5N 53.5W 260km 100yr	2	20	10	10	3	1	0	0	0	4	22	26	27.9
53.5N 53.5W 400km 100yr	5	28	14	14	7	1	0	0	0	8	33	41	29.7
053N-054N 054W-053W 50yr	0	0	0	0	0	0	0	0	0	0	0	0	0.0
53.5N 53.5W 260km 50yr	0	9	5	4	2	0	0	0	0	2	9	11	28.5
53.5N 53.5W 400km 50yr	2	15	7	8	5	0	0	0	0	5	17	22	30.3
053N-054N 053W-052W 100yr	0	3	2	1	0	1	0	0	0	1	3	4	35.2
53.5N 52.5W 260km 100yr	2	19	10	9	3	1	0	0	0	4	21	25	27.4
53.5N 52.5W 400km 100yr	5	29	14	15	7	1	0	0	0	8	34	42	29.7
053N-054N 053W-052W 50yr	0	1	1	0	0	0	0	0	0	0	1	1	35.3
53.5N 52.5W 260km 50yr	0	7	4	3	2	0	0	0	0	2	7	9	27.8
53.5N 52.5W 400km 50yr	2	15	7	8	5	0	0	0	0	5	17	22	30.2

Cell or Centre Radius	TD	TS	G	S	S1	S2	S3	S4	S5	H	<H	All	Spd
053N-054N 052W-051W 100yr	1	5	2	3	0	1	0	0	0	1	6	7	29.4
53.5N 51.5W 260km 100yr	2	19	10	9	5	1	0	0	0	6	21	27	27.5
53.5N 51.5W 400km 100yr	3	30	16	14	7	1	0	0	0	8	33	41	30.5
053N-054N 052W-051W 50yr	0	1	1	0	0	0	0	0	0	0	1	1	35.3
53.5N 51.5W 260km 50yr	0	7	4	3	4	0	0	0	0	4	7	11	28.1
53.5N 51.5W 400km 50yr	0	16	9	7	5	0	0	0	0	5	16	21	31.6
053N-054N 051W-050W 100yr	1	8	3	5	0	1	0	0	0	1	9	10	29.1
53.5N 50.5W 260km 100yr	2	21	11	10	6	1	0	0	0	7	23	30	27.8
53.5N 50.5W 400km 100yr	3	30	16	14	9	1	0	0	0	10	33	43	28.9
053N-054N 051W-050W 50yr	0	2	1	1	0	0	0	0	0	0	2	2	25.9
53.5N 50.5W 260km 50yr	0	9	4	5	5	0	0	0	0	5	9	14	29.4
53.5N 50.5W 400km 50yr	0	15	9	6	7	0	0	0	0	7	15	22	30.1
053N-054N 050W-049W 100yr	0	5	3	2	0	0	0	0	0	0	5	5	27.2
53.5N 49.5W 260km 100yr	3	22	12	10	5	1	0	0	0	6	25	31	28.5
53.5N 49.5W 400km 100yr	3	29	15	14	10	1	0	0	0	11	32	43	28.8
053N-054N 050W-049W 50yr	0	2	1	1	0	0	0	0	0	0	2	2	24.8
53.5N 49.5W 260km 50yr	0	9	4	5	5	0	0	0	0	5	9	14	29.9
53.5N 49.5W 400km 50yr	0	14	8	6	7	0	0	0	0	7	14	21	29.9
053N-054N 049W-048W 100yr	0	5	3	2	2	0	0	0	0	2	5	7	27.4
53.5N 48.5W 260km 100yr	3	21	11	10	6	1	0	0	0	7	24	31	27.4
53.5N 48.5W 400km 100yr	3	30	16	14	10	2	0	0	0	12	33	45	29.0
053N-054N 049W-048W 50yr	0	2	1	1	2	0	0	0	0	2	2	4	26.1
53.5N 48.5W 260km 50yr	0	10	5	5	6	0	0	0	0	6	10	16	27.9
53.5N 48.5W 400km 50yr	0	15	8	7	8	1	0	0	0	9	15	24	30.6
053N-054N 048W-047W 100yr	0	4	3	1	3	0	0	0	0	3	4	7	25.5
53.5N 47.5W 260km 100yr	3	20	9	11	6	1	0	0	0	7	23	30	27.7
53.5N 47.5W 400km 100yr	3	32	19	13	10	2	0	0	0	12	35	47	28.9
053N-054N 048W-047W 50yr	0	2	1	1	3	0	0	0	0	3	2	5	27.9
53.5N 47.5W 260km 50yr	0	10	4	6	6	0	0	0	0	6	10	16	27.6
53.5N 47.5W 400km 50yr	0	15	8	7	8	1	0	0	0	9	15	24	30.7
053N-054N 047W-046W 100yr	0	6	3	3	2	0	0	0	0	2	6	8	30.1
53.5N 46.5W 260km 100yr	2	18	10	8	7	1	0	0	0	8	20	28	28.5
53.5N 46.5W 400km 100yr	4	34	18	16	8	2	0	0	0	10	38	48	28.7
053N-054N 047W-046W 50yr	0	5	2	3	2	0	0	0	0	2	5	7	31.6
53.5N 46.5W 260km 50yr	0	10	4	6	6	0	0	0	0	6	10	16	29.4
53.5N 46.5W 400km 50yr	1	14	7	7	7	1	0	0	0	8	15	23	30.3
053N-054N 046W-045W 100yr	0	6	4	2	1	0	0	0	0	1	6	7	29.5
53.5N 45.5W 260km 100yr	2	21	12	9	7	1	0	0	0	8	23	31	28.5
53.5N 45.5W 400km 100yr	4	31	16	15	10	2	0	0	0	12	35	47	29.0
053N-054N 046W-045W 50yr	0	5	3	2	1	0	0	0	0	1	5	6	31.2
53.5N 45.5W 260km 50yr	0	11	5	6	6	0	0	0	0	6	11	17	29.5
53.5N 45.5W 400km 50yr	1	13	6	7	9	1	0	0	0	10	14	24	29.9

054°N to 055°N

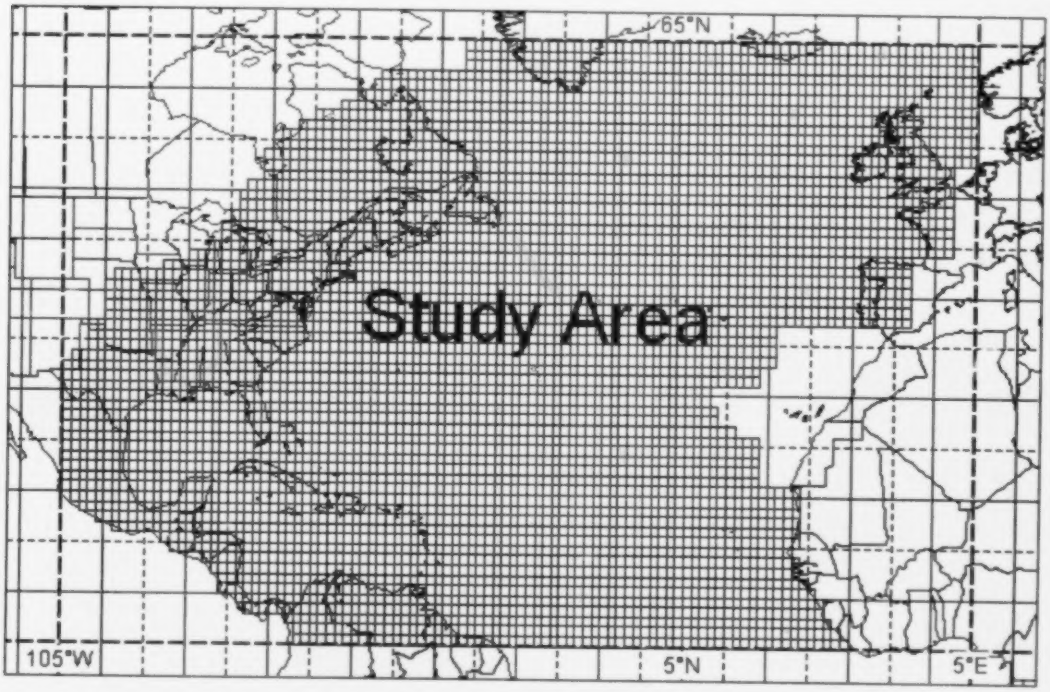
Cell or Centre Radius	TD	TS	G	S	S1	S2	S3	S4	S5	H	<H	All	Spd
054N-055N 070W-069W 100yr	1	0	0	0	0	0	0	0	0	0	1	1	36.5
54.5N 69.5W 260km 100yr	2	0	0	0	0	0	0	0	0	0	2	2	36.3
54.5N 69.5W 400km 100yr	2	1	1	0	1	0	0	0	0	1	3	4	34.8
054N-055N 070W-069W 50yr	1	0	0	0	0	0	0	0	0	0	1	1	36.5
54.5N 69.5W 260km 50yr	2	0	0	0	0	0	0	0	0	0	2	2	36.3
54.5N 69.5W 400km 50yr	2	1	1	0	1	0	0	0	0	1	3	4	34.8
054N-055N 069W-068W 100yr	1	0	0	0	0	0	0	0	0	0	1	1	36.5
54.5N 68.5W 260km 100yr	2	0	0	0	0	0	0	0	0	0	2	2	36.3
54.5N 68.5W 400km 100yr	3	0	0	0	1	0	0	0	0	1	3	4	34.8
054N-055N 069W-068W 50yr	1	0	0	0	0	0	0	0	0	0	1	1	36.5
54.5N 68.5W 260km 50yr	2	0	0	0	0	0	0	0	0	0	2	2	36.3
54.5N 68.5W 400km 50yr	3	0	0	0	1	0	0	0	0	1	3	4	34.8
054N-055N 068W-067W 100yr	1	0	0	0	0	0	0	0	0	0	1	1	31.9
54.5N 67.5W 260km 100yr	2	0	0	0	1	0	0	0	0	1	2	3	39.4
54.5N 67.5W 400km 100yr	3	1	0	1	1	0	0	0	0	1	4	5	36.9
054N-055N 068W-067W 50yr	1	0	0	0	0	0	0	0	0	0	1	1	31.9
54.5N 67.5W 260km 50yr	2	0	0	0	1	0	0	0	0	1	2	3	39.4
54.5N 67.5W 400km 50yr	2	1	0	1	1	0	0	0	0	1	3	4	38.8
054N-055N 067W-066W 100yr	1	0	0	0	0	0	0	0	0	0	1	1	31.9
54.5N 66.5W 260km 100yr	2	0	0	0	1	0	0	0	0	1	2	3	39.0
54.5N 66.5W 400km 100yr	3	2	1	1	1	0	0	0	0	1	5	6	34.3
054N-055N 067W-066W 50yr	1	0	0	0	0	0	0	0	0	0	1	1	31.9
54.5N 66.5W 260km 50yr	2	0	0	0	1	0	0	0	0	1	2	3	39.0
54.5N 66.5W 400km 50yr	2	2	1	1	1	0	0	0	0	1	4	5	35.3
054N-055N 066W-065W 100yr	0	0	0	0	0	0	0	0	0	0	0	0	0.0
54.5N 65.5W 260km 100yr	2	1	0	1	1	0	0	0	0	1	3	4	38.8
54.5N 65.5W 400km 100yr	3	3	1	2	1	0	0	0	0	1	6	7	33.3
054N-055N 066W-065W 50yr	0	0	0	0	0	0	0	0	0	0	0	0	0.0
54.5N 65.5W 260km 50yr	2	1	0	1	1	0	0	0	0	1	3	4	38.8
54.5N 65.5W 400km 50yr	2	3	1	2	1	0	0	0	0	1	5	6	34.0
054N-055N 065W-064W 100yr	0	0	0	0	0	0	0	0	0	0	0	0	0.0
54.5N 64.5W 260km 100yr	1	1	0	1	1	0	0	0	0	1	2	3	39.9
54.5N 64.5W 400km 100yr	3	5	1	4	1	0	0	0	0	1	8	9	33.5
054N-055N 065W-064W 50yr	0	0	0	0	0	0	0	0	0	0	0	0	0.0
54.5N 64.5W 260km 50yr	1	1	0	1	1	0	0	0	0	1	2	3	39.9
54.5N 64.5W 400km 50yr	2	5	1	4	1	0	0	0	0	1	7	8	34.3
054N-055N 064W-063W 100yr	0	0	0	0	0	0	0	0	0	0	0	0	0.0
54.5N 63.5W 260km 100yr	2	1	0	1	1	0	0	0	0	1	3	4	36.2
54.5N 63.5W 400km 100yr	3	5	1	4	1	0	0	0	0	1	8	9	32.8
054N-055N 064W-063W 50yr	0	0	0	0	0	0	0	0	0	0	0	0	0.0
54.5N 63.5W 260km 50yr	1	1	0	1	1	0	0	0	0	1	2	3	38.5
54.5N 63.5W 400km 50yr	2	5	1	4	1	0	0	0	0	1	7	8	33.4

Cell or Centre Radius	TD	TS	G	S	S1	S2	S3	S4	S5	H	<H	All	Spd
054N-055N 063W-062W 100yr	0	0	0	0	0	0	0	0	0	0	0	0	0.0
54.5N 62.5W 260km 100yr	1	5	1	4	1	0	0	0	0	1	6	7	30.9
54.5N 62.5W 400km 100yr	2	6	2	4	1	0	0	0	0	1	8	9	32.8
054N-055N 063W-062W 50yr	0	0	0	0	0	0	0	0	0	0	0	0	0.0
54.5N 62.5W 260km 50yr	0	5	1	4	1	0	0	0	0	1	5	6	31.4
54.5N 62.5W 400km 50yr	1	5	1	4	1	0	0	0	0	1	6	7	33.6
054N-055N 062W-061W 100yr	0	1	1	0	0	0	0	0	0	0	1	1	38.3
54.5N 61.5W 260km 100yr	1	5	1	4	0	0	0	0	0	0	6	6	29.6
54.5N 61.5W 400km 100yr	2	7	2	5	1	0	0	0	0	1	9	10	31.9
054N-055N 062W-061W 50yr	0	1	1	0	0	0	0	0	0	0	1	1	38.3
54.5N 61.5W 260km 50yr	0	5	1	4	0	0	0	0	0	0	5	5	30.0
54.5N 61.5W 400km 50yr	1	6	1	5	1	0	0	0	0	1	7	8	32.4
054N-055N 061W-060W 100yr	0	1	1	0	0	0	0	0	0	0	1	1	38.3
54.5N 60.5W 260km 100yr	1	5	1	4	0	0	0	0	0	0	6	6	30.1
54.5N 60.5W 400km 100yr	2	12	4	8	1	0	0	0	0	1	14	15	28.9
054N-055N 061W-060W 50yr	0	1	1	0	0	0	0	0	0	0	1	1	38.3
54.5N 60.5W 260km 50yr	0	5	1	4	0	0	0	0	0	0	5	5	30.6
54.5N 60.5W 400km 50yr	1	8	2	6	1	0	0	0	0	1	9	10	31.2
054N-055N 060W-059W 100yr	0	2	1	1	0	0	0	0	0	0	2	2	28.0
54.5N 59.5W 260km 100yr	1	5	1	4	0	0	0	0	0	0	6	6	30.1
54.5N 59.5W 400km 100yr	2	11	3	8	1	0	0	0	0	1	13	14	28.7
054N-055N 060W-059W 50yr	0	2	1	1	0	0	0	0	0	0	2	2	28.0
54.5N 59.5W 260km 50yr	0	5	1	4	0	0	0	0	0	0	5	5	30.6
54.5N 59.5W 400km 50yr	1	8	2	6	1	0	0	0	0	1	9	10	31.2
054N-055N 059W-058W 100yr	1	2	0	2	0	0	0	0	0	0	3	3	23.8
54.5N 58.5W 260km 100yr	1	5	2	3	0	0	0	0	0	0	6	6	28.8
54.5N 58.5W 400km 100yr	2	13	4	9	0	1	0	0	0	1	15	16	28.8
054N-055N 059W-058W 50yr	0	2	0	2	0	0	0	0	0	0	2	2	21.9
54.5N 58.5W 260km 50yr	0	5	2	3	0	0	0	0	0	0	5	5	29.4
54.5N 58.5W 400km 50yr	1	8	2	6	0	0	0	0	0	0	9	9	29.6
054N-055N 058W-057W 100yr	1	2	1	1	0	0	0	0	0	0	3	3	24.9
54.5N 57.5W 260km 100yr	1	8	3	5	0	0	0	0	0	0	9	9	27.6
54.5N 57.5W 400km 100yr	3	14	4	10	0	1	0	0	0	1	17	18	30.4
054N-055N 058W-057W 50yr	0	2	1	1	0	0	0	0	0	0	2	2	25.3
54.5N 57.5W 260km 50yr	0	6	3	3	0	0	0	0	0	0	6	6	29.4
54.5N 57.5W 400km 50yr	1	10	3	7	0	0	0	0	0	0	11	11	31.1
054N-055N 057W-056W 100yr	1	1	1	0	0	0	0	0	0	0	2	2	23.5
54.5N 56.5W 260km 100yr	1	10	4	6	0	0	0	0	0	0	11	11	28.9
54.5N 56.5W 400km 100yr	4	21	9	12	2	1	0	0	0	3	25	28	31.0
054N-055N 057W-056W 50yr	0	1	1	0	0	0	0	0	0	0	1	1	22.6
54.5N 56.5W 260km 50yr	0	6	3	3	0	0	0	0	0	0	6	6	29.4
54.5N 56.5W 400km 50yr	2	11	5	6	1	0	0	0	0	1	13	14	30.8

Cell or Centre Radius	TD	TS	G	S	S1	S2	S3	S4	S5	H	<H	All	Spd
054N-055N 056W-055W 100yr	1	1	1	0	0	0	0	0	0	0	2	2	29.7
54.5N 55.5W 260km 100yr	1	10	5	5	0	1	0	0	0	1	11	12	29.2
54.5N 55.5W 400km 100yr	4	25	12	13	2	1	0	0	0	3	29	32	30.0
054N-055N 056W-055W 50yr	0	1	1	0	0	0	0	0	0	0	1	1	35.0
54.5N 55.5W 260km 50yr	0	6	4	2	0	0	0	0	0	0	6	6	28.5
54.5N 55.5W 400km 50yr	2	13	6	7	1	0	0	0	0	1	15	16	30.7
054N-055N 055W-054W 100yr	1	1	1	0	0	0	0	0	0	0	2	2	28.9
54.5N 54.5W 260km 100yr	2	12	4	8	0	1	0	0	0	1	14	15	27.9
54.5N 54.5W 400km 100yr	3	27	13	14	3	1	0	0	0	4	30	34	28.9
054N-055N 055W-054W 50yr	0	1	1	0	0	0	0	0	0	0	1	1	35.0
54.5N 54.5W 260km 50yr	0	6	3	3	0	0	0	0	0	0	6	6	29.0
54.5N 54.5W 400km 50yr	1	14	6	8	2	0	0	0	0	2	15	17	29.3
054N-055N 054W-053W 100yr	1	1	1	0	0	0	0	0	0	0	2	2	18.1
54.5N 53.5W 260km 100yr	2	13	5	8	0	1	0	0	0	1	15	16	29.7
54.5N 53.5W 400km 100yr	3	25	12	13	5	1	0	0	0	6	28	34	27.8
054N-055N 054W-053W 50yr	0	0	0	0	0	0	0	0	0	0	0	0	0.0
54.5N 53.5W 260km 50yr	0	4	2	2	0	0	0	0	0	0	4	4	32.4
54.5N 53.5W 400km 50yr	1	13	6	7	4	0	0	0	0	4	14	18	28.8
054N-055N 053W-052W 100yr	1	4	3	1	0	0	0	0	0	0	5	5	29.0
54.5N 52.5W 260km 100yr	2	17	7	10	0	1	0	0	0	1	19	20	28.8
54.5N 52.5W 400km 100yr	2	24	11	13	6	1	0	0	0	7	26	33	27.1
054N-055N 053W-052W 50yr	0	1	1	0	0	0	0	0	0	0	1	1	40.0
54.5N 52.5W 260km 50yr	0	6	3	3	0	0	0	0	0	0	6	6	30.1
54.5N 52.5W 400km 50yr	0	12	5	7	5	0	0	0	0	5	12	17	27.6
054N-055N 052W-051W 100yr	1	2	1	1	0	0	0	0	0	0	3	3	29.4
54.5N 51.5W 260km 100yr	2	17	8	9	1	1	0	0	0	2	19	21	27.5
54.5N 51.5W 400km 100yr	3	26	14	12	6	1	0	0	0	7	29	36	27.6
054N-055N 052W-051W 50yr	0	1	1	0	0	0	0	0	0	0	1	1	40.0
54.5N 51.5W 260km 50yr	0	6	3	3	1	0	0	0	0	1	6	7	28.5
54.5N 51.5W 400km 50yr	0	13	7	6	5	0	0	0	0	5	13	18	28.2
054N-055N 051W-050W 100yr	1	3	1	2	0	1	0	0	0	1	4	5	28.9
54.5N 50.5W 260km 100yr	2	19	10	9	3	1	0	0	0	4	21	25	27.9
54.5N 50.5W 400km 100yr	3	25	14	11	7	1	0	0	0	8	28	36	27.8
054N-055N 051W-050W 50yr	0	0	0	0	0	0	0	0	0	0	0	0	0.0
54.5N 50.5W 260km 50yr	0	7	3	4	3	0	0	0	0	3	7	10	29.8
54.5N 50.5W 400km 50yr	0	12	7	5	6	0	0	0	0	6	12	18	28.5
054N-055N 050W-049W 100yr	1	4	3	1	0	1	0	0	0	1	5	6	29.9
54.5N 49.5W 260km 100yr	2	19	9	10	3	1	0	0	0	4	21	25	27.5
54.5N 49.5W 400km 100yr	3	25	14	11	8	1	0	0	0	9	28	37	27.5
054N-055N 050W-049W 50yr	0	0	0	0	0	0	0	0	0	0	0	0	0.0
54.5N 49.5W 260km 50yr	0	8	3	5	3	0	0	0	0	3	8	11	28.4
54.5N 49.5W 400km 50yr	0	13	7	6	7	0	0	0	0	7	13	20	28.0

Cell or Centre Radius	TD	TS	G	S	S1	S2	S3	S4	S5	H	<H	All	Spd
054N-055N 049W-048W 100yr	1	5	3	2	0	1	0	0	0	1	6	7	27.6
54.5N 48.5W 260km 100yr	2	20	10	10	3	1	0	0	0	4	22	26	27.8
54.5N 48.5W 400km 100yr	3	27	14	13	8	1	0	0	0	9	30	39	27.5
054N-055N 049W-048W 50yr	0	1	0	1	0	0	0	0	0	0	1	1	24.7
54.5N 48.5W 260km 50yr	0	9	4	5	3	0	0	0	0	3	9	12	28.7
54.5N 48.5W 400km 50yr	0	13	7	6	7	0	0	0	0	7	13	20	27.9
054N-055N 048W-047W 100yr	1	4	2	2	0	0	0	0	0	0	5	5	21.8
54.5N 47.5W 260km 100yr	2	18	9	9	4	1	0	0	0	5	20	25	27.1
54.5N 47.5W 400km 100yr	3	31	18	13	8	1	0	0	0	9	34	43	28.2
054N-055N 048W-047W 50yr	0	1	0	1	0	0	0	0	0	0	1	1	24.7
54.5N 47.5W 260km 50yr	0	8	3	5	4	0	0	0	0	4	8	12	27.4
54.5N 47.5W 400km 50yr	0	15	8	7	7	0	0	0	0	7	15	22	29.7
054N-055N 047W-046W 100yr	1	4	1	3	2	0	0	0	0	2	5	7	26.3
54.5N 46.5W 260km 100yr	1	15	8	7	4	1	0	0	0	5	16	21	27.0
54.5N 46.5W 400km 100yr	3	31	18	13	8	1	0	0	0	9	34	43	28.1
054N-055N 047W-046W 50yr	0	2	0	2	2	0	0	0	0	2	2	4	29.3
54.5N 46.5W 260km 50yr	0	8	3	5	4	0	0	0	0	4	8	12	27.1
54.5N 46.5W 400km 50yr	0	14	8	6	7	0	0	0	0	7	14	21	29.2
054N-055N 046W-045W 100yr	1	4	1	3	2	0	0	0	0	2	5	7	29.7
54.5N 45.5W 260km 100yr	1	17	9	8	6	1	0	0	0	7	18	25	27.8
54.5N 45.5W 400km 100yr	4	30	17	13	8	1	0	0	0	9	34	43	28.8
054N-055N 046W-045W 50yr	0	2	0	2	2	0	0	0	0	2	2	4	34.9
54.5N 45.5W 260km 50yr	0	9	3	6	6	0	0	0	0	6	9	15	28.7
54.5N 45.5W 400km 50yr	1	13	7	6	7	0	0	0	0	7	14	21	29.9

APPENDIX IV – NORTH ATLANTIC BASIN AND EASTERN NORTH AMERICA GRID CELL STATISTICS (TABULAR DATA)



Wind Speed Classification Ranges				
Abbreviation	**Definition**	**Winds (knots)**	**Winds (km/h)**	**Winds (mph)**
TD	Tropical Depression	< 34	< 63	< 39
TS	Tropical Storm	34-63	63-118	39-73
G [1]	Gale [1]	34-47	63-87	39-54
S [2]	Storm [2]	48-63	88-118	55-73
SS1 (or S1)	Saffir-Simpson 1	64-82	119-153	74-95
SS2 (or S2)	Saffir-Simpson 2	83-95	154-177	96-110
SS3 (or S3)	Saffir-Simpson 3	96-113	178-209	111-130
SS4 (or S4)	Saffir-Simpson 4	114-135	210-251	131-155
SS5 (or S5)	Saffir-Simpson 5	>135	>251	>155
H	Hurricane Strength	≥64	≥117	≥74
<H	Less Than Hurricane	<64	<117	<74
ALL	Count of all tropical storms moving through the area, regardless of wind strength			
Avg Sys Spd (kts) [3] (or Spd) (or Sys-Spd)	The average system or translation speed of the storm in knots [3]			

1.0 knot = 1.1516 mph = 0.5148 m/s = 1.853 km/h

Notes:

[1] Gale: Canadian marine warning definition for mid-latitude storms

[2] Storm: Canadian marine warning definition for mid-latitude storms

Tropical Storm winds span the Canadian Gale and Storm range…

Gales + # Storms = # Tropical Storms

[3] The average of the system translation speeds for all storms that crossed the area or grid cell. If a storm took more than 6 hours to transit the cell, then all of its 6 hour translation speeds were used in the average. The structure of the Mapinfo database is such that the last report for a given storm will be represented geographically by a zero length line or point and the resulting translation speed will be reduced to zero. Inclusion of these false speeds would yield inappropriate averages and they were excluded. Value is in knots.

Note: cells with no historical tracks during the 100 year study period have been removed from this list (All = 0), reducing the original 4364 cells to 4000.

007°N to 008°N

Grid Cell	TD	TS	G	S	S1	S2	S3	S4	S5	H	<H	All	Spd
007N-008N 046W-045W 100yr	1	0	0	0	0	0	0	0	0	0	1	1	22.0
50yr	1	0	0	0	0	0	0	0	0	0	1	1	22.0
007N-008N 045W-044W 100yr	1	0	0	0	0	0	0	0	0	0	1	1	23.9
50yr	1	0	0	0	0	0	0	0	0	0	1	1	23.9
007N-008N 044W-043W 100yr	1	0	0	0	0	0	0	0	0	0	1	1	25.8
50yr	1	0	0	0	0	0	0	0	0	0	1	1	25.8
007N-008N 043W-042W 100yr	1	0	0	0	0	0	0	0	0	0	1	1	27.8
50yr	1	0	0	0	0	0	0	0	0	0	1	1	27.8
007N-008N 042W-041W 100yr	1	0	0	0	0	0	0	0	0	0	1	1	27.8
50yr	1	0	0	0	0	0	0	0	0	0	1	1	27.8
007N-008N 034W-033W 100yr	1	0	0	0	0	0	0	0	0	0	1	1	17.9

Grid Cell		TD	TS	G	S	S1	S2	S3	S4	S5	H	<H	All	Spd
	50yr	1	0	0	0	0	0	0	0	0	0	1	1	17.9
007N-008N 033W-032W	100yr	1	0	0	0	0	0	0	0	0	0	1	1	17.9
	50yr	1	0	0	0	0	0	0	0	0	0	1	1	17.9
007N-008N 027W-026W	100yr	1	0	0	0	0	0	0	0	0	0	1	1	18.8
	50yr	1	0	0	0	0	0	0	0	0	0	1	1	18.8
007N-008N 026W-025W	100yr	1	0	0	0	0	0	0	0	0	0	1	1	17.9
	50yr	1	0	0	0	0	0	0	0	0	0	1	1	17.9
007N-008N 025W-024W	100yr	1	0	0	0	0	0	0	0	0	0	1	1	17.0
	50yr	1	0	0	0	0	0	0	0	0	0	1	1	17.0
007N-008N 024W-023W	100yr	1	0	0	0	0	0	0	0	0	0	1	1	17.0
	50yr	1	0	0	0	0	0	0	0	0	0	1	1	17.0

008°N to 009°N

Grid Cell		TD	TS	G	S	S1	S2	S3	S4	S5	H	<H	All	Spd
008N-009N 083W-082W	100yr	1	0	0	0	0	0	0	0	0	0	1	1	4.1
	50yr	1	0	0	0	0	0	0	0	0	0	1	1	4.1
008N-009N 082W-081W	100yr	0	1	0	1	0	0	0	0	0	0	1	1	2.7
	50yr	0	1	0	1	0	0	0	0	0	0	1	1	2.7
008N-009N 081W-080W	100yr	0	1	0	1	0	0	0	0	0	0	1	1	2.1
	50yr	0	1	0	1	0	0	0	0	0	0	1	1	2.1
008N-009N 058W-057W	100yr	0	1	0	1	0	0	0	0	0	0	1	1	15.1
	50yr	0	0	0	0	0	0	0	0	0	0	0	0	0.0
008N-009N 057W-056W	100yr	0	1	1	0	0	0	0	0	0	0	1	1	15.0
	50yr	0	0	0	0	0	0	0	0	0	0	0	0	0.0
008N-009N 054W-053W	100yr	0	1	1	0	0	0	0	0	0	0	1	1	24.4
	50yr	0	1	1	0	0	0	0	0	0	0	1	1	24.4
008N-009N 053W-052W	100yr	1	0	0	0	0	0	0	0	0	0	1	1	24.9
	50yr	1	0	0	0	0	0	0	0	0	0	1	1	24.9
008N-009N 052W-051W	100yr	1	0	0	0	0	0	0	0	0	0	1	1	23.5
	50yr	1	0	0	0	0	0	0	0	0	0	1	1	23.5
008N-009N 051W-050W	100yr	1	0	0	0	0	0	0	0	0	0	1	1	22.0
	50yr	1	0	0	0	0	0	0	0	0	0	1	1	22.0
008N-009N 050W-049W	100yr	1	0	0	0	0	0	0	0	0	0	1	1	22.0
	50yr	1	0	0	0	0	0	0	0	0	0	1	1	22.0
008N-009N 049W-048W	100yr	1	0	0	0	0	0	0	0	0	0	1	1	21.5
	50yr	1	0	0	0	0	0	0	0	0	0	1	1	21.5
008N-009N 048W-047W	100yr	1	0	0	0	0	0	0	0	0	0	1	1	20.9
	50yr	1	0	0	0	0	0	0	0	0	0	1	1	20.9
008N-009N 047W-046W	100yr	1	0	0	0	0	0	0	0	0	0	1	1	21.5
	50yr	1	0	0	0	0	0	0	0	0	0	1	1	21.5
008N-009N 046W-045W	100yr	2	0	0	0	0	0	0	0	0	0	2	2	18.5
	50yr	2	0	0	0	0	0	0	0	0	0	2	2	18.5
008N-009N 045W-044W	100yr	1	0	0	0	0	0	0	0	0	0	1	1	15.5
	50yr	1	0	0	0	0	0	0	0	0	0	1	1	15.5
008N-009N 044W-043W	100yr	2	0	0	0	0	0	0	0	0	0	2	2	14.6
	50yr	2	0	0	0	0	0	0	0	0	0	2	2	14.6
008N-009N 043W-042W	100yr	4	0	0	0	0	0	0	0	0	0	4	4	17.9

Grid Cell	TD	TS	G	S	S1	S2	S3	S4	S5	H	<H	All	Spd
50yr	4	0	0	0	0	0	0	0	0	0	4	4	17.9
008N-009N 042W-041W 100yr	3	0	0	0	0	0	0	0	0	0	3	3	18.9
50yr	3	0	0	0	0	0	0	0	0	0	3	3	18.9
008N-009N 041W-040W 100yr	2	0	0	0	0	0	0	0	0	0	2	2	23.1
50yr	2	0	0	0	0	0	0	0	0	0	2	2	23.1
008N-009N 040W-039W 100yr	2	0	0	0	0	0	0	0	0	0	2	2	22.6
50yr	2	0	0	0	0	0	0	0	0	0	2	2	22.6
008N-009N 039W-038W 100yr	2	0	0	0	0	0	0	0	0	0	2	2	23.1
50yr	2	0	0	0	0	0	0	0	0	0	2	2	23.1
008N-009N 038W-037W 100yr	2	0	0	0	0	0	0	0	0	0	2	2	22.8
50yr	2	0	0	0	0	0	0	0	0	0	2	2	22.8
008N-009N 037W-036W 100yr	2	0	0	0	0	0	0	0	0	0	2	2	21.1
50yr	2	0	0	0	0	0	0	0	0	0	2	2	21.1
008N-009N 036W-035W 100yr	2	0	0	0	0	0	0	0	0	0	2	2	19.4
50yr	2	0	0	0	0	0	0	0	0	0	2	2	19.4
008N-009N 035W-034W 100yr	3	1	1	0	0	0	0	0	0	0	4	4	17.8
50yr	3	0	0	0	0	0	0	0	0	0	3	3	20.9
008N-009N 034W-033W 100yr	3	1	1	0	0	0	0	0	0	0	4	4	17.6
50yr	3	0	0	0	0	0	0	0	0	0	3	3	21.0
008N-009N 033W-032W 100yr	3	1	1	0	0	0	0	0	0	0	4	4	15.8
50yr	3	0	0	0	0	0	0	0	0	0	3	3	18.8
008N-009N 032W-031W 100yr	1	0	0	0	0	0	0	0	0	0	1	1	13.9
50yr	1	0	0	0	0	0	0	0	0	0	1	1	13.9
008N-009N 029W-028W 100yr	1	0	0	0	0	0	0	0	0	0	1	1	11.5
50yr	1	0	0	0	0	0	0	0	0	0	1	1	11.5
008N-009N 028W-027W 100yr	2	0	0	0	0	0	0	0	0	0	2	2	15.1
50yr	2	0	0	0	0	0	0	0	0	0	2	2	15.1
008N-009N 027W-026W 100yr	1	0	0	0	0	0	0	0	0	0	1	1	18.7
50yr	1	0	0	0	0	0	0	0	0	0	1	1	18.7
008N-009N 025W-024W 100yr	1	0	0	0	0	0	0	0	0	0	1	1	19.7
50yr	1	0	0	0	0	0	0	0	0	0	1	1	19.7
008N-009N 024W-023W 100yr	1	0	0	0	0	0	0	0	0	0	1	1	19.7
50yr	1	0	0	0	0	0	0	0	0	0	1	1	19.7

009°N to 010°N

009N-010N 082W-081W 100yr	0	0	0	0	1	0	0	0	0	1	0	1	1.9
50yr	0	0	0	0	1	0	0	0	0	1	0	1	1.9
009N-010N 081W-080W 100yr	0	1	1	0	1	0	0	0	0	1	1	2	6.9
50yr	0	0	0	0	1	0	0	0	0	1	0	1	1.9
009N-010N 062W-061W 100yr	0	0	0	0	1	0	0	0	0	1	0	1	14.4
50yr	0	0	0	0	0	0	0	0	0	0	0	0	0.0
009N-010N 061W-060W 100yr	0	1	1	0	1	0	0	0	0	1	1	2	19.0
50yr	0	1	1	0	0	0	0	0	0	0	1	1	23.2
009N-010N 060W-059W 100yr	0	1	1	0	1	0	0	0	0	1	1	2	20.9
50yr	0	1	1	0	0	0	0	0	0	0	1	1	26.6
009N-010N 059W-058W 100yr	0	2	1	1	0	0	0	0	0	0	2	2	20.9

Grid Cell	TD	TS	G	S	S1	S2	S3	S4	S5	H	<H	All	Spd
50yr	0	1	1	0	0	0	0	0	0	0	1	1	26.6
009N-010N 058W-057W 100yr	0	2	1	1	0	0	0	0	0	0	2	2	22.5
50yr	0	1	1	0	0	0	0	0	0	0	1	1	30.0
009N-010N 057W-056W 100yr	0	1	1	0	0	0	0	0	0	0	1	1	26.9
50yr	0	1	1	0	0	0	0	0	0	0	1	1	26.9
009N-010N 056W-055W 100yr	0	1	1	0	0	0	0	0	0	0	1	1	26.9
50yr	0	1	1	0	0	0	0	0	0	0	1	1	26.9
009N-010N 055W-054W 100yr	1	3	1	2	0	0	0	0	0	0	4	4	20.4
50yr	1	3	1	2	0	0	0	0	0	0	4	4	20.4
009N-010N 054W-053W 100yr	1	2	1	1	0	0	0	0	0	0	3	3	20.9
50yr	1	2	1	1	0	0	0	0	0	0	3	3	20.9
009N-010N 053W-052W 100yr	2	1	1	0	0	0	0	0	0	0	3	3	14.2
50yr	2	1	1	0	0	0	0	0	0	0	3	3	14.2
009N-010N 052W-051W 100yr	5	0	0	0	0	0	0	0	0	0	5	5	14.8
50yr	5	0	0	0	0	0	0	0	0	0	5	5	14.8
009N-010N 051W-050W 100yr	4	0	0	0	0	0	0	0	0	0	4	4	14.6
50yr	4	0	0	0	0	0	0	0	0	0	4	4	14.6
009N-010N 050W-049W 100yr	3	0	0	0	0	0	0	0	0	0	3	3	15.9
50yr	3	0	0	0	0	0	0	0	0	0	3	3	15.9
009N-010N 049W-048W 100yr	3	0	0	0	0	0	0	0	0	0	3	3	16.8
50yr	3	0	0	0	0	0	0	0	0	0	3	3	16.8
009N-010N 048W-047W 100yr	3	0	0	0	0	0	0	0	0	0	3	3	17.3
50yr	3	0	0	0	0	0	0	0	0	0	3	3	17.3
009N-010N 047W-046W 100yr	3	0	0	0	0	0	0	0	0	0	3	3	16.9
50yr	3	0	0	0	0	0	0	0	0	0	3	3	16.9
009N-010N 046W-045W 100yr	4	0	0	0	0	0	0	0	0	0	4	4	14.7
50yr	4	0	0	0	0	0	0	0	0	0	4	4	14.7
009N-010N 045W-044W 100yr	4	0	0	0	0	0	0	0	0	0	4	4	14.2
50yr	4	0	0	0	0	0	0	0	0	0	4	4	14.2
009N-010N 044W-043W 100yr	2	0	0	0	0	0	0	0	0	0	2	2	14.8
50yr	2	0	0	0	0	0	0	0	0	0	2	2	14.8
009N-010N 043W-042W 100yr	1	0	0	0	0	0	0	0	0	0	1	1	15.1
50yr	1	0	0	0	0	0	0	0	0	0	1	1	15.1
009N-010N 042W-041W 100yr	0	1	1	0	0	0	0	0	0	0	1	1	11.2
50yr	0	1	1	0	0	0	0	0	0	0	1	1	11.2
009N-010N 037W-036W 100yr	1	1	1	0	0	0	0	0	0	0	2	2	19.2
50yr	1	0	0	0	0	0	0	0	0	0	1	1	25.3
009N-010N 036W-035W 100yr	4	1	1	0	0	0	0	0	0	0	5	5	17.9
50yr	4	0	0	0	0	0	0	0	0	0	4	4	19.4
009N-010N 035W-034W 100yr	4	1	1	0	0	0	0	0	0	0	5	5	18.5
50yr	4	0	0	0	0	0	0	0	0	0	4	4	20.9
009N-010N 034W-033W 100yr	2	0	0	0	0	0	0	0	0	0	2	2	19.1
50yr	2	0	0	0	0	0	0	0	0	0	2	2	19.1
009N-010N 033W-032W 100yr	3	1	1	0	0	0	0	0	0	0	4	4	14.6
50yr	3	1	1	0	0	0	0	0	0	0	4	4	14.6
009N-010N 032W-031W 100yr	3	0	0	0	0	0	0	0	0	0	3	3	13.7
50yr	3	0	0	0	0	0	0	0	0	0	3	3	13.7
009N-010N 031W-030W 100yr	3	0	0	0	0	0	0	0	0	0	3	3	13.3

Grid Cell		TD	TS	G	S	S1	S2	S3	S4	S5	H	<H	All	Spd
	50yr	3	0	0	0	0	0	0	0	0	0	3	3	13.3
009N-010N 030W-029W	100yr	3	0	0	0	0	0	0	0	0	0	3	3	13.9
	50yr	3	0	0	0	0	0	0	0	0	0	3	3	13.9
009N-010N 029W-028W	100yr	3	0	0	0	0	0	0	0	0	0	3	3	14.9
	50yr	3	0	0	0	0	0	0	0	0	0	3	3	14.9
009N-010N 028W-027W	100yr	4	0	0	0	0	0	0	0	0	0	4	4	15.6
	50yr	4	0	0	0	0	0	0	0	0	0	4	4	15.6
009N-010N 027W-026W	100yr	3	0	0	0	0	0	0	0	0	0	3	3	14.1
	50yr	3	0	0	0	0	0	0	0	0	0	3	3	14.1
009N-010N 026W-025W	100yr	2	0	0	0	0	0	0	0	0	0	2	2	16.4
	50yr	2	0	0	0	0	0	0	0	0	0	2	2	16.4
009N-010N 025W-024W	100yr	1	0	0	0	0	0	0	0	0	0	1	1	19.7
	50yr	1	0	0	0	0	0	0	0	0	0	1	1	19.7
009N-010N 018W-017W	100yr	1	0	0	0	0	0	0	0	0	0	1	1	12.0
	50yr	1	0	0	0	0	0	0	0	0	0	1	1	12.0

010°N to 011°N

Grid Cell		TD	TS	G	S	S1	S2	S3	S4	S5	H	<H	All	Spd
010N-011N 093W-092W	100yr	0	1	1	0	0	0	0	0	0	0	1	1	23.2
	50yr	0	0	0	0	0	0	0	0	0	0	0	0	0.0
010N-011N 092W-091W	100yr	0	1	1	0	0	0	0	0	0	0	1	1	23.2
	50yr	0	0	0	0	0	0	0	0	0	0	0	0	0.0
010N-011N 083W-082W	100yr	1	0	0	0	0	0	0	0	0	0	1	1	8.9
	50yr	1	0	0	0	0	0	0	0	0	0	1	1	8.9
010N-011N 082W-081W	100yr	1	1	1	0	1	0	0	0	0	1	2	3	6.6
	50yr	1	1	1	0	1	0	0	0	0	1	2	3	6.6
010N-011N 081W-080W	100yr	2	5	4	1	1	0	0	0	0	1	7	8	7.9
	50yr	2	0	0	0	1	0	0	0	0	1	2	3	5.9
010N-011N 080W-079W	100yr	1	4	2	2	0	0	0	0	0	0	5	5	7.8
	50yr	1	0	0	0	0	0	0	0	0	0	1	1	12.4
010N-011N 079W-078W	100yr	1	2	2	0	0	0	0	0	0	0	3	3	8.8
	50yr	1	0	0	0	0	0	0	0	0	0	1	1	13.8
010N-011N 078W-077W	100yr	1	1	1	0	0	0	0	0	0	0	2	2	13.1
	50yr	1	1	1	0	0	0	0	0	0	0	2	2	13.1
010N-011N 077W-076W	100yr	0	1	1	0	0	0	0	0	0	0	1	1	19.7
	50yr	0	1	1	0	0	0	0	0	0	0	1	1	19.7
010N-011N 076W-075W	100yr	0	1	1	0	0	0	0	0	0	0	1	1	19.8
	50yr	0	1	1	0	0	0	0	0	0	0	1	1	19.8
010N-011N 075W-074W	100yr	0	1	1	0	0	0	0	0	0	0	1	1	19.8
	50yr	0	1	1	0	0	0	0	0	0	0	1	1	19.8
010N-011N 074W-073W	100yr	0	1	1	0	0	0	0	0	0	0	1	1	19.8
	50yr	0	1	1	0	0	0	0	0	0	0	1	1	19.8
010N-011N 073W-072W	100yr	0	1	1	0	0	0	0	0	0	0	1	1	19.7
	50yr	0	1	1	0	0	0	0	0	0	0	1	1	19.7
010N-011N 072W-071W	100yr	0	1	1	0	0	0	0	0	0	0	1	1	20.2

Grid Cell	TD	TS	G	S	S1	S2	S3	S4	S5	H	<H	All	Spd
50yr	0	1	1	0	0	0	0	0	0	0	1	1	20.2
010N-011N 071W-070W 100yr	0	2	2	0	0	0	0	0	0	0	2	2	22.6
50yr	0	2	2	0	0	0	0	0	0	0	2	2	22.6
010N-011N 070W-069W 100yr	0	2	2	0	0	0	0	0	0	0	2	2	22.6
50yr	0	2	2	0	0	0	0	0	0	0	2	2	22.6
010N-011N 069W-068W 100yr	0	2	2	0	0	0	0	0	0	0	2	2	22.6
50yr	0	2	2	0	0	0	0	0	0	0	2	2	22.6
010N-011N 068W-067W 100yr	0	2	2	0	0	0	0	0	0	0	2	2	20.9
50yr	0	2	2	0	0	0	0	0	0	0	2	2	20.9
010N-011N 067W-066W 100yr	0	2	2	0	0	0	0	0	0	0	2	2	19.3
50yr	0	2	2	0	0	0	0	0	0	0	2	2	19.3
010N-011N 066W-065W 100yr	0	3	2	1	0	0	0	0	0	0	3	3	16.9
50yr	0	2	2	0	0	0	0	0	0	0	2	2	19.7
010N-011N 065W-064W 100yr	0	2	1	1	1	0	0	0	0	1	2	3	17.2
50yr	0	2	1	1	0	0	0	0	0	0	2	2	20.4
010N-011N 064W-063W 100yr	0	2	1	1	1	0	0	0	0	1	2	3	17.7
50yr	0	2	1	1	0	0	0	0	0	0	2	2	20.6
010N-011N 063W-062W 100yr	1	2	1	1	1	0	0	0	0	1	3	4	19.1
50yr	1	2	1	1	0	0	0	0	0	0	3	3	20.9
010N-011N 062W-061W 100yr	0	3	2	1	1	0	0	0	0	1	3	4	20.2
50yr	0	3	2	1	0	0	0	0	0	0	3	3	22.2
010N-011N 061W-060W 100yr	0	3	2	1	0	0	1	0	0	1	3	4	20.2
50yr	0	3	2	1	0	0	1	0	0	1	3	4	20.2
010N-011N 060W-059W 100yr	0	4	3	1	0	0	1	0	0	1	4	5	16.8
50yr	0	4	3	1	0	0	1	0	0	1	4	5	16.8
010N-011N 059W-058W 100yr	0	5	3	2	0	1	0	0	0	1	5	6	18.4
50yr	0	4	2	2	0	1	0	0	0	1	4	5	16.7
010N-011N 058W-057W 100yr	0	5	3	2	1	1	0	0	0	2	5	7	18.6
50yr	0	4	2	2	0	1	0	0	0	1	4	5	16.9
010N-011N 057W-056W 100yr	0	5	2	3	2	0	0	0	0	2	5	7	16.5
50yr	0	4	2	2	2	0	0	0	0	2	4	6	15.4
010N-011N 056W-055W 100yr	3	5	2	3	1	0	0	0	0	1	8	9	17.8
50yr	3	3	1	2	1	0	0	0	0	1	6	7	17.9
010N-011N 055W-054W 100yr	5	6	2	4	0	0	0	0	0	0	11	11	18.4
50yr	5	4	0	4	0	0	0	0	0	0	9	9	17.2
010N-011N 054W-053W 100yr	4	6	3	3	1	0	0	0	0	1	10	11	15.2
50yr	4	4	1	3	1	0	0	0	0	1	8	9	16.3
010N-011N 053W-052W 100yr	5	6	4	2	1	0	0	0	0	1	11	12	14.6
50yr	5	5	3	2	1	0	0	0	0	1	10	11	15.3
010N-011N 052W-051W 100yr	6	5	4	1	0	0	0	0	0	0	11	11	15.1
50yr	6	4	3	1	0	0	0	0	0	0	10	10	16.0
010N-011N 051W-050W 100yr	4	2	2	0	1	0	0	0	0	1	6	7	15.8
50yr	4	1	1	0	1	0	0	0	0	1	5	6	16.6
010N-011N 050W-049W 100yr	2	2	2	0	1	0	0	0	0	1	4	5	15.5
50yr	2	1	1	0	1	0	0	0	0	1	3	4	16.7
010N-011N 049W-048W 100yr	4	2	2	0	1	0	0	0	0	1	6	7	16.1
50yr	4	1	1	0	1	0	0	0	0	1	5	6	16.1
010N-011N 048W-047W 100yr	4	3	3	0	1	0	0	0	0	1	7	8	15.8

Grid Cell	TD	TS	G	S	S1	S2	S3	S4	S5	H	<H	All	Spd
50yr	4	2	2	0	1	0	0	0	0	1	6	7	15.2
010N-011N 047W-046W 100yr	4	3	3	0	1	0	0	0	0	1	7	8	15.8
50yr	4	2	2	0	1	0	0	0	0	1	6	7	15.2
010N-011N 046W-045W 100yr	4	2	2	0	1	0	0	0	0	1	6	7	15.2
50yr	4	2	2	0	1	0	0	0	0	1	6	7	15.2
010N-011N 045W-044W 100yr	5	3	3	0	0	0	0	0	0	0	8	8	15.1
50yr	5	3	3	0	0	0	0	0	0	0	8	8	15.1
010N-011N 044W-043W 100yr	2	2	2	0	0	0	0	0	0	0	4	4	16.6
50yr	2	2	2	0	0	0	0	0	0	0	4	4	16.6
010N-011N 043W-042W 100yr	2	4	4	0	0	0	0	0	0	0	6	6	16.3
50yr	2	3	3	0	0	0	0	0	0	0	5	5	17.9
010N-011N 042W-041W 100yr	4	3	3	0	0	0	0	0	0	0	7	7	15.4
50yr	4	2	2	0	0	0	0	0	0	0	6	6	16.5
010N-011N 041W-040W 100yr	5	3	3	0	0	0	0	0	0	0	8	8	15.0
50yr	5	2	2	0	0	0	0	0	0	0	7	7	15.7
010N-011N 040W-039W 100yr	3	6	6	0	0	0	0	0	0	0	9	9	17.6
50yr	3	4	4	0	0	0	0	0	0	0	7	7	18.7
010N-011N 039W-038W 100yr	2	6	6	0	0	0	0	0	0	0	8	8	18.7
50yr	2	4	4	0	0	0	0	0	0	0	6	6	19.8
010N-011N 038W-037W 100yr	5	7	7	0	0	0	0	0	0	0	12	12	17.6
50yr	5	4	4	0	0	0	0	0	0	0	9	9	19.0
010N-011N 037W-036W 100yr	8	6	6	0	0	0	0	0	0	0	14	14	16.2
50yr	8	2	2	0	0	0	0	0	0	0	10	10	18.0
010N-011N 036W-035W 100yr	8	5	5	0	0	0	0	0	0	0	13	13	15.1
50yr	8	2	2	0	0	0	0	0	0	0	10	10	16.6
010N-011N 035W-034W 100yr	5	5	5	0	0	0	0	0	0	0	10	10	14.5
50yr	5	3	3	0	0	0	0	0	0	0	8	8	15.8
010N-011N 034W-033W 100yr	3	6	6	0	0	0	0	0	0	0	9	9	13.7
50yr	3	4	4	0	0	0	0	0	0	0	7	7	15.0
010N-011N 033W-032W 100yr	3	7	7	0	0	0	0	0	0	0	10	10	14.0
50yr	3	5	5	0	0	0	0	0	0	0	8	8	15.0
010N-011N 032W-031W 100yr	3	5	4	1	0	0	0	0	0	0	8	8	15.1
50yr	3	4	3	1	0	0	0	0	0	0	7	7	15.4
010N-011N 031W-030W 100yr	5	4	4	0	0	0	0	0	0	0	9	9	14.5
50yr	5	3	3	0	0	0	0	0	0	0	8	8	14.3
010N-011N 030W-029W 100yr	5	4	4	0	0	0	0	0	0	0	9	9	15.6
50yr	5	3	3	0	0	0	0	0	0	0	8	8	15.3
010N-011N 029W-028W 100yr	4	2	2	0	0	0	0	0	0	0	6	6	16.4
50yr	4	2	2	0	0	0	0	0	0	0	6	6	16.4
010N-011N 028W-027W 100yr	4	1	1	0	0	0	0	0	0	0	5	5	17.3
50yr	4	1	1	0	0	0	0	0	0	0	5	5	17.3
010N-011N 027W-026W 100yr	3	2	2	0	0	0	0	0	0	0	5	5	18.1
50yr	3	2	2	0	0	0	0	0	0	0	5	5	18.1
010N-011N 026W-025W 100yr	7	2	2	0	0	0	0	0	0	0	9	9	15.9
50yr	7	2	2	0	0	0	0	0	0	0	9	9	15.9
010N-011N 025W-024W 100yr	4	2	2	0	0	0	0	0	0	0	6	6	13.3
50yr	4	2	2	0	0	0	0	0	0	0	6	6	13.3
010N-011N 024W-023W 100yr	4	1	1	0	0	0	0	0	0	0	5	5	15.9

Grid Cell	TD	TS	G	S	S1	S2	S3	S4	S5	H	<H	All	Spd
50yr	4	1	1	0	0	0	0	0	0	0	5	5	15.9
010N-011N 023W-022W 100yr	5	1	1	0	0	0	0	0	0	0	6	6	15.1
50yr	5	1	1	0	0	0	0	0	0	0	6	6	15.1
010N-011N 022W-021W 100yr	3	1	1	0	0	0	0	0	0	0	4	4	18.0
50yr	3	1	1	0	0	0	0	0	0	0	4	4	18.0
010N-011N 021W-020W 100yr	2	0	0	0	0	0	0	0	0	0	2	2	13.3
50yr	2	0	0	0	0	0	0	0	0	0	2	2	13.3
010N-011N 020W-019W 100yr	2	1	1	0	0	0	0	0	0	0	3	3	12.8
50yr	2	1	1	0	0	0	0	0	0	0	3	3	12.8
010N-011N 019W-018W 100yr	4	0	0	0	0	0	0	0	0	0	4	4	14.7
50yr	4	0	0	0	0	0	0	0	0	0	4	4	14.7
010N-011N 018W-017W 100yr	3	0	0	0	0	0	0	0	0	0	3	3	15.6
50yr	3	0	0	0	0	0	0	0	0	0	3	3	15.6
010N-011N 017W-016W 100yr	1	0	0	0	0	0	0	0	0	0	1	1	12.3
50yr	1	0	0	0	0	0	0	0	0	0	1	1	12.3
010N-011N 016W-015W 100yr	1	0	0	0	0	0	0	0	0	0	1	1	11.8
50yr	1	0	0	0	0	0	0	0	0	0	1	1	11.8
010N-011N 015W-014W 100yr	1	0	0	0	0	0	0	0	0	0	1	1	11.8
50yr	1	0	0	0	0	0	0	0	0	0	1	1	11.8
010N-011N 014W-013W 100yr	1	0	0	0	0	0	0	0	0	0	1	1	11.8
50yr	1	0	0	0	0	0	0	0	0	0	1	1	11.8

011°N to 012°N

Grid Cell	TD	TS	G	S	S1	S2	S3	S4	S5	H	<H	All	Spd
011N-012N 094W-093W 100yr	0	1	1	0	0	0	0	0	0	0	1	1	19.7
50yr	0	0	0	0	0	0	0	0	0	0	0	0	0.0
011N-012N 093W-092W 100yr	0	1	1	0	0	0	0	0	0	0	1	1	23.2
50yr	0	0	0	0	0	0	0	0	0	0	0	0	0.0
011N-012N 087W-086W 100yr	2	0	0	0	0	0	0	0	0	0	2	2	9.3
50yr	2	0	0	0	0	0	0	0	0	0	2	2	9.3
011N-012N 086W-085W 100yr	0	2	1	1	0	0	0	1	0	1	2	3	9.1
50yr	0	2	1	1	0	0	0	1	0	1	2	3	9.1
011N-012N 085W-084W 100yr	0	2	2	0	1	0	0	1	0	2	2	4	8.5
50yr	0	2	2	0	1	0	0	1	0	2	2	4	8.5
011N-012N 084W-083W 100yr	0	2	2	0	1	0	0	1	0	2	2	4	8.7
50yr	0	2	2	0	1	0	0	1	0	2	2	4	8.7
011N-012N 083W-082W 100yr	2	3	3	0	2	1	0	1	0	4	5	9	8.6
50yr	2	2	2	0	2	0	0	1	0	3	4	7	8.8
011N-012N 082W-081W 100yr	1	6	4	2	2	1	1	0	0	4	7	11	7.8
50yr	1	3	1	2	1	0	1	0	0	2	4	6	9.1
011N-012N 081W-080W 100yr	2	11	9	2	3	1	0	0	0	4	13	17	7.8
50yr	2	1	0	1	1	1	0	0	0	2	3	5	9.0
011N-012N 080W-079W 100yr	1	11	6	5	1	0	1	0	0	2	12	14	8.0
50yr	1	1	0	1	1	0	1	0	0	2	2	4	9.5
011N-012N 079W-078W 100yr	3	6	4	2	0	0	1	0	0	1	9	10	8.1
50yr	3	2	0	2	0	0	1	0	0	1	5	6	7.8
011N-012N 078W-077W 100yr	3	4	2	2	0	1	0	0	0	1	7	8	7.7

Grid Cell	TD	TS	G	S	S1	S2	S3	S4	S5	H	<H	All	Spd
50yr	3	2	1	1	0	1	0	0	0	1	5	6	7.5
011N-012N 077W-076W 100yr	1	1	0	1	1	0	0	0	0	1	2	3	10.3
50yr	1	1	0	1	1	0	0	0	0	1	2	3	10.3
011N-012N 076W-075W 100yr	0	1	1	0	1	0	0	0	0	1	1	2	12.3
50yr	0	1	1	0	1	0	0	0	0	1	1	2	12.3
011N-012N 075W-074W 100yr	0	0	0	0	1	0	0	0	0	1	0	1	9.2
50yr	0	0	0	0	1	0	0	0	0	1	0	1	9.2
011N-012N 074W-073W 100yr	0	0	0	0	1	0	0	0	0	1	0	1	9.5
50yr	0	0	0	0	1	0	0	0	0	1	0	1	9.5
011N-012N 073W-072W 100yr	0	1	0	1	0	0	0	0	0	0	1	1	9.2
50yr	0	1	0	1	0	0	0	0	0	0	1	1	9.2
011N-012N 072W-071W 100yr	0	2	1	1	0	0	0	0	0	0	2	2	14.8
50yr	0	2	1	1	0	0	0	0	0	0	2	2	14.8
011N-012N 071W-070W 100yr	0	2	1	1	0	0	0	0	0	0	2	2	15.2
50yr	0	2	1	1	0	0	0	0	0	0	2	2	15.2
011N-012N 070W-069W 100yr	0	3	1	2	0	0	0	0	0	0	3	3	14.4
50yr	0	2	1	1	0	0	0	0	0	0	2	2	15.2
011N-012N 069W-068W 100yr	1	3	1	2	0	0	0	0	0	0	4	4	14.1
50yr	1	2	1	1	0	0	0	0	0	0	3	3	15.1
011N-012N 068W-067W 100yr	2	3	1	2	0	0	0	0	0	0	5	5	13.8
50yr	2	2	1	1	0	0	0	0	0	0	4	4	15.0
011N-012N 067W-066W 100yr	3	2	1	1	0	0	0	0	0	0	5	5	13.3
50yr	3	1	1	0	0	0	0	0	0	0	4	4	14.0
011N-012N 066W-065W 100yr	4	2	1	1	0	0	0	0	0	0	6	6	13.7
50yr	4	1	1	0	0	0	0	0	0	0	5	5	14.2
011N-012N 065W-064W 100yr	5	2	1	1	0	0	0	0	0	0	7	7	15.3
50yr	5	2	1	1	0	0	0	0	0	0	7	7	15.3
011N-012N 064W-063W 100yr	5	2	1	1	0	0	1	0	0	1	7	8	15.2
50yr	5	2	1	1	0	0	1	0	0	1	7	8	15.2
011N-012N 063W-062W 100yr	5	4	4	0	0	0	1	0	0	1	9	10	16.7
50yr	5	3	3	0	0	0	1	0	0	1	8	9	16.0
011N-012N 062W-061W 100yr	3	8	8	0	0	0	1	0	0	1	11	12	15.4
50yr	3	5	5	0	0	0	1	0	0	1	8	9	14.8
011N-012N 061W-060W 100yr	1	9	8	1	0	0	1	0	0	1	10	11	16.3
50yr	1	6	5	1	0	0	1	0	0	1	7	8	15.3
011N-012N 060W-059W 100yr	1	7	7	0	1	0	0	0	0	1	8	9	18.8
50yr	1	3	3	0	0	0	0	0	0	0	4	4	15.4
011N-012N 059W-058W 100yr	1	9	8	1	1	0	0	0	0	1	10	11	18.2
50yr	1	3	3	0	0	0	0	0	0	0	4	4	16.9
011N-012N 058W-057W 100yr	2	10	9	1	1	0	0	0	0	1	12	13	18.4
50yr	2	4	4	0	0	0	0	0	0	0	6	6	14.0
011N-012N 057W-056W 100yr	1	9	8	1	1	0	0	0	0	1	10	11	17.2
50yr	1	3	3	0	1	0	0	0	0	1	4	5	13.6
011N-012N 056W-055W 100yr	2	8	7	1	1	0	0	0	0	1	10	11	16.6
50yr	2	3	3	0	1	0	0	0	0	1	5	6	14.2
011N-012N 055W-054W 100yr	4	5	5	0	1	0	0	0	0	1	9	10	15.3
50yr	4	3	3	0	1	0	0	0	0	1	7	8	13.7
011N-012N 054W-053W 100yr	5	5	5	0	1	0	0	0	0	1	10	11	12.8

Grid Cell		TD	TS	G	S	S1	S2	S3	S4	S5	H	<H	All	Spd
	50yr	5	4	4	0	1	0	0	0	0	1	9	10	13.3
011N-012N 053W-052W	100yr	4	4	3	1	1	0	0	0	0	1	8	9	13.5
	50yr	4	2	2	0	1	0	0	0	0	1	6	7	14.2
011N-012N 052W-051W	100yr	6	1	1	0	0	1	0	0	0	1	7	8	14.5
	50yr	6	0	0	0	0	1	0	0	0	1	6	7	15.0
011N-012N 051W-050W	100yr	6	3	2	1	1	0	0	0	0	1	9	10	13.4
	50yr	6	1	0	1	1	0	0	0	0	1	7	8	14.5
011N-012N 050W-049W	100yr	6	3	2	1	1	0	0	0	0	1	9	10	12.8
	50yr	6	1	0	1	1	0	0	0	0	1	7	8	13.8
011N-012N 049W-048W	100yr	7	1	0	1	1	0	0	0	0	1	8	9	12.9
	50yr	7	1	0	1	1	0	0	0	0	1	8	9	12.9
011N-012N 048W-047W	100yr	6	4	1	3	0	0	0	0	0	0	10	10	14.6
	50yr	6	4	1	3	0	0	0	0	0	0	10	10	14.6
011N-012N 047W-046W	100yr	5	5	1	4	0	1	0	0	0	1	10	11	15.2
	50yr	5	5	1	4	0	0	0	0	0	0	10	10	15.7
011N-012N 046W-045W	100yr	5	6	4	2	1	1	0	0	0	2	11	13	15.0
	50yr	5	6	4	2	1	0	0	0	0	1	11	12	15.4
011N-012N 045W-044W	100yr	8	6	4	2	1	1	0	0	0	2	14	16	14.6
	50yr	8	6	4	2	1	0	0	0	0	1	14	15	15.0
011N-012N 044W-043W	100yr	5	6	4	2	1	1	0	0	0	2	11	13	15.3
	50yr	5	5	3	2	1	0	0	0	0	1	10	11	16.4
011N-012N 043W-042W	100yr	4	7	5	2	1	0	0	0	0	1	11	12	15.9
	50yr	4	5	3	2	0	0	0	0	0	0	9	9	17.2
011N-012N 042W-041W	100yr	5	5	3	2	1	0	0	0	0	1	10	11	16.8
	50yr	5	4	2	2	0	0	0	0	0	0	9	9	17.4
011N-012N 041W-040W	100yr	9	6	6	0	0	0	0	0	0	0	15	15	17.0
	50yr	9	4	4	0	0	0	0	0	0	0	13	13	17.4
011N-012N 040W-039W	100yr	10	7	7	0	0	0	0	0	0	0	17	17	17.5
	50yr	10	4	4	0	0	0	0	0	0	0	14	14	18.2
011N-012N 039W-038W	100yr	8	7	6	1	0	0	0	0	0	0	15	15	16.8
	50yr	8	5	4	1	0	0	0	0	0	0	13	13	17.6
011N-012N 038W-037W	100yr	6	9	6	3	0	0	0	0	0	0	15	15	14.8
	50yr	6	6	3	3	0	0	0	0	0	0	12	12	15.8
011N-012N 037W-036W	100yr	4	7	6	1	0	0	0	0	0	0	11	11	15.0
	50yr	4	5	4	1	0	0	0	0	0	0	9	9	15.4
011N-012N 036W-035W	100yr	1	7	7	0	1	0	0	0	0	1	8	9	15.5
	50yr	1	7	7	0	1	0	0	0	0	1	8	9	15.5
011N-012N 035W-034W	100yr	3	7	6	1	2	0	0	0	0	2	10	12	15.6
	50yr	3	7	6	1	2	0	0	0	0	2	10	12	15.6
011N-012N 034W-033W	100yr	3	7	5	2	1	0	0	0	0	1	10	11	15.4
	50yr	3	7	5	2	1	0	0	0	0	1	10	11	15.4
011N-012N 033W-032W	100yr	4	5	4	1	1	0	0	0	0	1	9	10	16.1
	50yr	4	5	4	1	1	0	0	0	0	1	9	10	16.1
011N-012N 032W-031W	100yr	3	5	4	1	1	0	0	0	0	1	8	9	15.9
	50yr	3	5	4	1	1	0	0	0	0	1	8	9	15.9
011N-012N 031W-030W	100yr	8	4	3	1	0	0	0	0	0	0	12	12	15.6
	50yr	8	4	3	1	0	0	0	0	0	0	12	12	15.6
011N-012N 030W-029W	100yr	7	5	4	1	0	0	0	0	0	0	12	12	17.0

Grid Cell	TD	TS	G	S	S1	S2	S3	S4	S5	H	<H	All	Spd
50yr	7	4	3	1	0	0	0	0	0	0	11	11	16.9
011N-012N 029W-028W 100yr	5	6	6	0	0	0	0	0	0	0	11	11	16.7
50yr	5	4	4	0	0	0	0	0	0	0	9	9	17.7
011N-012N 028W-027W 100yr	5	4	4	0	0	0	0	0	0	0	9	9	16.9
50yr	5	3	3	0	0	0	0	0	0	0	8	8	16.8
011N-012N 027W-026W 100yr	5	4	4	0	0	0	0	0	0	0	9	9	16.3
50yr	5	3	3	0	0	0	0	0	0	0	8	8	16.2
011N-012N 026W-025W 100yr	5	3	3	0	0	0	0	0	0	0	8	8	15.7
50yr	5	3	3	0	0	0	0	0	0	0	8	8	15.7
011N-012N 025W-024W 100yr	4	2	2	0	0	0	0	0	0	0	6	6	14.2
50yr	4	2	2	0	0	0	0	0	0	0	6	6	14.2
011N-012N 024W-023W 100yr	5	1	1	0	0	0	0	0	0	0	6	6	16.8
50yr	5	1	1	0	0	0	0	0	0	0	6	6	16.8
011N-012N 023W-022W 100yr	5	1	1	0	0	0	0	0	0	0	6	6	18.5
50yr	5	1	1	0	0	0	0	0	0	0	6	6	18.5
011N-012N 022W-021W 100yr	2	1	1	0	0	0	0	0	0	0	3	3	19.3
50yr	2	1	1	0	0	0	0	0	0	0	3	3	19.3
011N-012N 021W-020W 100yr	2	1	1	0	0	0	0	0	0	0	3	3	18.9
50yr	2	1	1	0	0	0	0	0	0	0	3	3	18.9
011N-012N 020W-019W 100yr	1	1	1	0	0	0	0	0	0	0	2	2	17.5
50yr	1	1	1	0	0	0	0	0	0	0	2	2	17.5
011N-012N 019W-018W 100yr	1	0	0	0	0	0	0	0	0	0	1	1	21.8
50yr	1	0	0	0	0	0	0	0	0	0	1	1	21.8
011N-012N 015W-014W 100yr	1	0	0	0	0	0	0	0	0	0	1	1	11.8
50yr	1	0	0	0	0	0	0	0	0	0	1	1	11.8
011N-012N 014W-013W 100yr	1	0	0	0	0	0	0	0	0	0	1	1	11.8
50yr	1	0	0	0	0	0	0	0	0	0	1	1	11.8

012°N to 013°N

012N-013N 095W-094W 100yr	0	1	1	0	0	0	0	0	0	0	1	1	16.1
50yr	0	0	0	0	0	0	0	0	0	0	0	0	0.0
012N-013N 094W-093W 100yr	0	1	1	0	0	0	0	0	0	0	1	1	16.1
50yr	0	0	0	0	0	0	0	0	0	0	0	0	0.0
012N-013N 092W-091W 100yr	1	0	0	0	0	0	0	0	0	0	1	1	11.0
50yr	1	0	0	0	0	0	0	0	0	0	1	1	11.0
012N-013N 090W-089W 100yr	0	1	1	0	0	0	0	0	0	0	1	1	9.9
50yr	0	0	0	0	0	0	0	0	0	0	0	0	0.0
012N-013N 088W-087W 100yr	0	2	1	1	0	0	0	0	0	0	2	2	12.1
50yr	0	2	1	1	0	0	0	0	0	0	2	2	12.1
012N-013N 087W-086W 100yr	2	1	0	1	1	0	0	0	0	1	3	4	11.4
50yr	2	1	0	1	1	0	0	0	0	1	3	4	11.4
012N-013N 086W-085W 100yr	1	1	1	0	1	0	0	1	0	2	2	4	11.1
50yr	1	0	0	0	1	0	0	1	0	2	1	3	11.8
012N-013N 085W-084W 100yr	1	2	2	0	1	1	0	1	0	3	3	6	9.8
50yr	1	1	1	0	1	0	0	1	0	2	2	4	10.2
012N-013N 084W-083W 100yr	2	2	2	0	1	1	0	0	0	2	4	6	9.5

Grid Cell	TD	TS	G	S	S1	S2	S3	S4	S5	H	<H	All	Spd
50yr	2	0	0	0	1	0	0	0	0	1	2	3	8.7
012N-013N 083W-082W 100yr	2	4	4	0	3	2	0	0	0	5	6	11	9.4
50yr	2	0	0	0	1	0	0	0	0	1	2	3	8.7
012N-013N 082W-081W 100yr	3	4	3	1	2	1	1	0	0	4	7	11	6.2
50yr	3	0	0	0	0	0	1	0	0	1	3	4	5.9
012N-013N 081W-080W 100yr	4	14	13	1	1	1	0	0	0	2	18	20	7.0
50yr	4	0	0	0	0	0	0	0	0	0	4	4	6.3
012N-013N 080W-079W 100yr	3	10	8	2	1	1	0	0	0	2	13	15	7.7
50yr	3	1	0	1	0	0	0	0	0	0	4	4	8.4
012N-013N 079W-078W 100yr	4	6	4	2	2	0	0	0	0	2	10	12	8.8
50yr	4	2	0	2	0	0	0	0	0	0	6	6	9.0
012N-013N 078W-077W 100yr	2	7	5	2	0	0	0	0	0	0	9	9	9.5
50yr	2	3	2	1	0	0	0	0	0	0	5	5	9.1
012N-013N 077W-076W 100yr	1	4	4	0	0	0	0	0	0	0	5	5	10.3
50yr	1	2	2	0	0	0	0	0	0	0	3	3	11.0
012N-013N 076W-075W 100yr	0	3	3	0	0	0	0	0	0	0	3	3	14.6
50yr	0	2	2	0	0	0	0	0	0	0	2	2	15.5
012N-013N 075W-074W 100yr	0	4	3	1	0	0	0	0	0	0	4	4	13.9
50yr	0	2	2	0	0	0	0	0	0	0	2	2	15.8
012N-013N 074W-073W 100yr	0	3	2	1	0	1	0	0	0	1	3	4	12.8
50yr	0	2	2	0	0	0	0	0	0	0	2	2	15.7
012N-013N 073W-072W 100yr	0	4	2	2	0	1	0	0	0	1	4	5	13.3
50yr	0	3	2	1	0	0	0	0	0	0	3	3	15.0
012N-013N 072W-071W 100yr	1	4	2	2	0	1	0	0	0	1	5	6	11.6
50yr	1	3	2	1	0	0	0	0	0	0	4	4	12.6
012N-013N 071W-070W 100yr	1	4	2	2	0	1	0	0	0	1	5	6	12.0
50yr	1	3	2	1	0	0	0	0	0	0	4	4	13.5
012N-013N 070W-069W 100yr	1	5	3	2	0	0	0	0	0	0	6	6	13.7
50yr	1	4	3	1	0	0	0	0	0	0	5	5	13.9
012N-013N 069W-068W 100yr	4	2	2	0	0	0	0	0	0	0	6	6	17.6
50yr	4	2	2	0	0	0	0	0	0	0	6	6	17.6
012N-013N 068W-067W 100yr	6	2	1	1	1	0	0	0	0	1	8	9	16.4
50yr	6	2	1	1	1	0	0	0	0	1	8	9	16.4
012N-013N 067W-066W 100yr	5	2	2	0	2	1	0	1	0	4	7	11	15.5
50yr	5	1	1	0	1	1	0	1	0	3	6	9	14.9
012N-013N 066W-065W 100yr	5	2	2	0	2	1	0	1	0	4	7	11	15.4
50yr	5	0	0	0	1	1	0	1	0	3	5	8	14.7
012N-013N 065W-064W 100yr	3	8	7	1	2	0	0	1	0	3	11	14	15.8
50yr	3	2	1	1	1	0	0	1	0	2	5	7	15.0
012N-013N 064W-063W 100yr	3	13	10	3	1	1	1	0	0	3	16	19	14.6
50yr	3	4	2	2	0	1	1	0	0	2	7	9	12.7
012N-013N 063W-062W 100yr	3	16	13	3	2	0	1	0	0	3	19	22	13.7
50yr	3	4	2	2	1	0	1	0	0	2	7	9	12.2
012N-013N 062W-061W 100yr	1	21	19	2	2	0	1	0	0	3	22	25	13.5
50yr	1	7	6	1	1	0	1	0	0	2	8	10	12.9
012N-013N 061W-060W 100yr	1	20	15	5	1	0	1	0	0	2	21	23	13.3
50yr	1	7	4	3	0	0	1	0	0	1	8	9	12.5
012N-013N 060W-059W 100yr	1	19	15	4	1	0	1	0	0	2	20	22	14.3

Grid Cell	TD	TS	G	S	S1	S2	S3	S4	S5	H	<H	All	Spd
50yr	1	7	4	3	0	0	1	0	0	1	8	9	13.6
012N-013N 059W-058W 100yr	2	15	12	3	0	0	0	0	0	0	17	17	16.1
50yr	2	6	4	2	0	0	0	0	0	0	8	8	15.5
012N-013N 058W-057W 100yr	4	14	13	1	1	1	0	0	0	2	18	20	16.2
50yr	4	7	6	1	1	1	0	0	0	2	11	13	15.0
012N-013N 057W-056W 100yr	4	13	11	2	1	0	0	1	0	2	17	19	15.3
50yr	4	7	5	2	1	0	0	1	0	2	11	13	14.9
012N-013N 056W-055W 100yr	4	10	8	2	1	0	0	1	0	2	14	16	15.3
50yr	4	8	6	2	1	0	0	1	0	2	12	14	14.1
012N-013N 055W-054W 100yr	4	10	8	2	1	0	0	1	0	2	14	16	14.2
50yr	4	8	7	1	1	0	0	1	0	2	12	14	14.5
012N-013N 054W-053W 100yr	4	9	7	2	1	0	0	1	0	2	13	15	13.9
50yr	4	6	5	1	1	0	0	1	0	2	10	12	14.8
012N-013N 053W-052W 100yr	3	6	5	1	2	0	0	1	0	3	9	12	14.5
50yr	3	3	3	0	2	0	0	1	0	3	6	9	16.1
012N-013N 052W-051W 100yr	2	6	6	0	2	1	0	0	0	3	8	11	14.7
50yr	2	5	5	0	2	1	0	0	0	3	7	10	15.5
012N-013N 051W-050W 100yr	4	6	5	1	0	0	0	0	0	0	10	10	13.4
50yr	4	5	4	1	0	0	0	0	0	0	9	9	14.1
012N-013N 050W-049W 100yr	4	5	3	2	1	1	0	0	0	2	9	11	13.9
50yr	4	4	2	2	1	0	0	0	0	1	8	9	14.9
012N-013N 049W-048W 100yr	4	10	5	5	1	1	0	0	0	2	14	16	14.2
50yr	4	9	5	4	1	0	0	0	0	1	13	14	14.2
012N-013N 048W-047W 100yr	6	10	3	7	0	1	0	0	0	1	16	17	14.6
50yr	6	9	3	6	0	0	0	0	0	0	15	15	14.6
012N-013N 047W-046W 100yr	6	8	3	5	1	1	0	0	0	2	14	16	14.3
50yr	6	7	3	4	1	0	0	0	0	1	13	14	14.4
012N-013N 046W-045W 100yr	3	8	4	4	2	0	0	0	0	2	11	13	15.2
50yr	3	5	2	3	2	0	0	0	0	2	8	10	15.0
012N-013N 045W-044W 100yr	2	6	4	2	2	0	0	0	0	2	8	10	16.2
50yr	2	3	2	1	2	0	0	0	0	2	5	7	16.3
012N-013N 044W-043W 100yr	2	8	5	3	3	1	0	0	0	4	10	14	17.0
50yr	2	5	3	2	3	1	0	0	0	4	7	11	17.3
012N-013N 043W-042W 100yr	3	8	7	1	2	2	0	0	0	4	11	15	16.7
50yr	3	6	5	1	2	2	0	0	0	4	9	13	17.0
012N-013N 042W-041W 100yr	4	9	7	2	4	2	0	0	0	6	13	19	15.1
50yr	4	8	6	2	3	2	0	0	0	5	12	17	15.7
012N-013N 041W-040W 100yr	8	8	6	2	5	1	0	0	0	6	16	22	14.7
50yr	8	6	4	2	4	1	0	0	0	5	14	19	15.2
012N-013N 040W-039W 100yr	8	5	4	1	5	1	0	0	0	6	13	19	14.9
50yr	8	3	2	1	4	1	0	0	0	5	11	16	15.7
012N-013N 039W-038W 100yr	7	7	4	3	5	0	0	0	0	5	14	19	14.4
50yr	7	5	2	3	4	0	0	0	0	4	12	16	15.0
012N-013N 038W-037W 100yr	5	7	3	4	4	0	0	0	0	4	12	16	14.7
50yr	5	6	2	4	3	0	0	0	0	3	11	14	15.4
012N-013N 037W-036W 100yr	4	5	2	3	3	0	0	0	0	3	9	12	14.3
50yr	4	5	2	3	3	0	0	0	0	3	9	12	14.3
012N-013N 036W-035W 100yr	7	5	4	1	3	0	0	0	0	3	12	15	14.0

Grid Cell		TD	TS	G	S	S1	S2	S3	S4	S5	H	<H	All	Spd
	50yr	7	5	4	1	3	0	0	0	0	3	12	15	14.0
012N-013N 035W-034W	100yr	6	5	5	0	2	0	0	0	0	2	11	13	14.2
	50yr	6	5	5	0	2	0	0	0	0	2	11	13	14.2
012N-013N 034W-033W	100yr	4	3	3	0	0	0	0	0	0	0	7	7	14.9
	50yr	4	3	3	0	0	0	0	0	0	0	7	7	14.9
012N-013N 033W-032W	100yr	4	4	4	0	0	0	0	0	0	0	8	8	15.4
	50yr	4	4	4	0	0	0	0	0	0	0	8	8	15.4
012N-013N 032W-031W	100yr	3	4	4	0	0	0	1	0	0	1	7	8	14.1
	50yr	3	4	4	0	0	0	1	0	0	1	7	8	14.1
012N-013N 031W-030W	100yr	3	4	4	0	0	0	1	0	0	1	7	8	13.4
	50yr	3	4	4	0	0	0	1	0	0	1	7	8	13.4
012N-013N 030W-029W	100yr	6	4	4	0	0	0	1	0	0	1	10	11	13.5
	50yr	6	3	3	0	0	0	1	0	0	1	9	10	14.3
012N-013N 029W-028W	100yr	11	3	3	0	1	1	0	0	0	2	14	16	13.4
	50yr	11	2	2	0	0	1	0	0	0	1	13	14	14.0
012N-013N 028W-027W	100yr	10	2	2	0	2	0	0	0	0	2	12	14	13.0
	50yr	10	2	2	0	1	0	0	0	0	1	12	13	13.1
012N-013N 027W-026W	100yr	9	3	3	0	2	0	0	0	0	2	12	14	14.5
	50yr	9	2	2	0	1	0	0	0	0	1	11	12	14.6
012N-013N 026W-025W	100yr	9	3	3	0	1	0	0	0	0	1	12	13	14.6
	50yr	9	2	2	0	1	0	0	0	0	1	11	12	14.5
012N-013N 025W-024W	100yr	7	4	2	2	0	0	0	0	0	0	11	11	14.6
	50yr	7	3	1	2	0	0	0	0	0	0	10	10	14.5
012N-013N 024W-023W	100yr	5	3	1	2	0	0	0	0	0	0	8	8	13.5
	50yr	5	3	1	2	0	0	0	0	0	0	8	8	13.5
012N-013N 023W-022W	100yr	7	3	3	0	0	0	0	0	0	0	10	10	15.8
	50yr	7	3	3	0	0	0	0	0	0	0	10	10	15.8
012N-013N 022W-021W	100yr	5	2	2	0	0	0	0	0	0	0	7	7	15.0
	50yr	5	2	2	0	0	0	0	0	0	0	7	7	15.0
012N-013N 021W-020W	100yr	4	0	0	0	0	0	0	0	0	0	4	4	17.9
	50yr	4	0	0	0	0	0	0	0	0	0	4	4	17.9
012N-013N 020W-019W	100yr	3	0	0	0	0	0	0	0	0	0	3	3	18.0
	50yr	3	0	0	0	0	0	0	0	0	0	3	3	18.0
012N-013N 019W-018W	100yr	1	0	0	0	0	0	0	0	0	0	1	1	9.8
	50yr	1	0	0	0	0	0	0	0	0	0	1	1	9.8
012N-013N 018W-017W	100yr	1	0	0	0	0	0	0	0	0	0	1	1	7.7
	50yr	1	0	0	0	0	0	0	0	0	0	1	1	7.7

013°N to 014°N

013N-014N 095W-094W	100yr	0	1	1	0	0	0	0	0	0	0	1	1	15.3
	50yr	0	0	0	0	0	0	0	0	0	0	0	0	0.0
013N-014N 094W-093W	100yr	0	2	1	1	0	0	0	0	0	0	2	2	8.9
	50yr	0	0	0	0	0	0	0	0	0	0	0	0	0.0
013N-014N 093W-092W	100yr	0	2	1	1	0	0	0	0	0	0	2	2	12.4
	50yr	0	0	0	0	0	0	0	0	0	0	0	0	0.0
013N-014N 092W-091W	100yr	1	1	1	0	0	0	0	0	0	0	2	2	12.4

Grid Cell		TD	TS	G	S	S1	S2	S3	S4	S5	H	<H	All	Spd
	50yr	1	0	0	0	0	0	0	0	0	0	1	1	10.5
013N-014N 091W-090W	100yr	0	2	2	0	0	0	0	0	0	0	2	2	8.0
	50yr	0	0	0	0	0	0	0	0	0	0	0	0	0.0
013N-014N 090W-089W	100yr	0	2	2	0	0	0	0	0	0	0	2	2	10.6
	50yr	0	0	0	0	0	0	0	0	0	0	0	0	0.0
013N-014N 089W-088W	100yr	0	1	1	0	0	0	0	0	0	0	1	1	11.3
	50yr	0	0	0	0	0	0	0	0	0	0	0	0	0.0
013N-014N 088W-087W	100yr	0	2	1	1	0	0	0	0	0	0	2	2	13.9
	50yr	0	1	0	1	0	0	0	0	0	0	1	1	17.1
013N-014N 087W-086W	100yr	1	1	1	0	0	0	0	0	0	0	2	2	9.3
	50yr	1	0	0	0	0	0	0	0	0	0	1	1	7.8
013N-014N 086W-085W	100yr	1	1	0	1	0	0	0	0	0	0	2	2	8.5
	50yr	1	0	0	0	0	0	0	0	0	0	1	1	6.3
013N-014N 085W-084W	100yr	1	3	3	0	2	0	0	0	0	2	4	6	8.6
	50yr	1	1	1	0	0	0	0	0	0	0	2	2	6.2
013N-014N 084W-083W	100yr	1	4	4	0	2	1	0	0	0	3	5	8	8.2
	50yr	1	2	2	0	0	0	0	0	0	0	3	3	5.9
013N-014N 083W-082W	100yr	3	7	7	0	2	1	0	0	0	3	10	13	8.6
	50yr	3	2	2	0	0	0	0	0	0	0	5	5	8.7
013N-014N 082W-081W	100yr	3	10	9	1	1	1	1	0	0	3	13	16	7.6
	50yr	3	1	1	0	0	0	1	0	0	1	4	5	7.3
013N-014N 081W-080W	100yr	6	13	12	1	1	1	0	0	0	2	19	21	7.8
	50yr	6	1	0	1	0	0	0	0	0	0	7	7	8.1
013N-014N 080W-079W	100yr	5	9	7	2	0	1	0	0	0	1	14	15	7.9
	50yr	5	1	0	1	0	0	0	0	0	0	6	6	9.2
013N-014N 079W-078W	100yr	3	5	5	0	4	1	2	0	0	7	8	15	8.8
	50yr	2	0	0	0	1	1	0	0	0	2	2	4	10.6
013N-014N 078W-077W	100yr	1	2	1	1	4	1	1	0	0	6	3	9	11.0
	50yr	0	0	0	0	3	0	0	0	0	3	0	3	10.9
013N-014N 077W-076W	100yr	0	4	2	2	3	2	1	0	0	6	4	10	12.0
	50yr	0	2	0	2	1	0	1	0	0	2	2	4	14.1
013N-014N 076W-075W	100yr	0	5	2	3	2	1	1	0	0	4	5	9	12.6
	50yr	0	2	0	2	1	0	1	0	0	2	2	4	14.2
013N-014N 075W-074W	100yr	0	3	1	2	2	1	1	1	0	5	3	8	11.0
	50yr	0	1	0	1	1	0	1	1	0	3	1	4	11.9
013N-014N 074W-073W	100yr	0	2	1	1	2	1	1	2	0	6	2	8	11.7
	50yr	0	1	1	0	1	0	1	2	0	4	1	5	12.5
013N-014N 073W-072W	100yr	0	3	1	2	2	1	1	1	0	5	3	8	13.6
	50yr	0	2	1	1	0	1	1	1	0	3	2	5	12.8
013N-014N 072W-071W	100yr	1	2	1	1	2	1	1	1	0	5	3	8	13.7
	50yr	1	1	1	0	0	1	1	1	0	3	2	5	13.2
013N-014N 071W-070W	100yr	1	4	2	2	1	2	1	1	0	5	5	10	12.9
	50yr	1	1	1	0	0	1	1	1	0	3	2	5	14.1
013N-014N 070W-069W	100yr	1	5	4	1	2	1	2	0	0	5	6	11	14.7
	50yr	1	1	1	0	0	1	2	0	0	3	2	5	15.9
013N-014N 069W-068W	100yr	1	8	7	1	3	0	2	1	0	6	9	15	15.0
	50yr	1	2	2	0	1	0	2	1	0	4	3	7	16.9
013N-014N 068W-067W	100yr	1	10	7	3	3	0	2	1	0	6	11	17	14.2

Grid Cell	TD	TS	G	S	S1	S2	S3	S4	S5	H	<H	All	Spd
50yr	1	1	1	0	1	0	2	1	0	4	2	6	13.9
013N-014N 067W-066W 100yr	2	12	10	2	3	2	0	1	0	6	14	20	13.4
50yr	2	1	1	0	0	2	0	1	0	3	3	6	13.2
013N-014N 066W-065W 100yr	1	14	13	1	1	2	0	1	0	4	15	19	12.4
50yr	1	2	1	1	0	2	0	1	0	3	3	6	13.6
013N-014N 065W-064W 100yr	1	17	13	4	1	1	0	0	0	2	18	20	12.9
50yr	1	2	0	2	0	1	0	0	0	1	3	4	14.5
013N-014N 064W-063W 100yr	2	17	11	6	1	0	0	1	0	2	19	21	13.3
50yr	2	4	1	3	1	0	0	1	0	2	6	8	13.7
013N-014N 063W-062W 100yr	3	15	11	4	2	0	0	1	0	3	18	21	13.0
50yr	3	2	1	1	1	0	0	1	0	2	5	7	13.6
013N-014N 062W-061W 100yr	0	16	14	2	2	0	0	1	0	3	16	19	13.1
50yr	0	5	5	0	1	0	0	1	0	2	5	7	14.9
013N-014N 061W-060W 100yr	1	16	13	3	2	1	0	1	0	4	17	21	12.7
50yr	1	4	3	1	1	1	0	1	0	3	5	8	13.0
013N-014N 060W-059W 100yr	5	17	15	2	1	1	1	0	0	3	22	25	15.6
50yr	5	3	2	1	1	1	1	0	0	3	8	11	17.5
013N-014N 059W-058W 100yr	7	14	11	3	2	1	0	1	0	4	21	25	16.2
50yr	7	3	1	2	2	1	0	1	0	4	10	14	16.9
013N-014N 058W-057W 100yr	9	17	12	5	2	1	0	1	0	4	26	30	15.4
50yr	9	6	3	3	1	1	0	1	0	3	15	18	15.8
013N-014N 057W-056W 100yr	9	10	4	6	1	0	0	1	0	2	19	21	14.9
50yr	9	5	3	2	0	0	0	1	0	1	14	15	15.6
013N-014N 056W-055W 100yr	3	11	5	6	1	0	0	0	0	1	14	15	14.3
50yr	3	5	3	2	0	0	0	0	0	0	8	8	15.7
013N-014N 055W-054W 100yr	2	10	6	4	1	0	0	0	0	1	12	13	14.7
50yr	2	5	4	1	0	0	0	0	0	0	7	7	15.3
013N-014N 054W-053W 100yr	5	9	5	4	2	0	0	0	0	2	14	16	15.6
50yr	5	6	3	3	1	0	0	0	0	1	11	12	15.3
013N-014N 053W-052W 100yr	4	9	7	2	2	0	0	0	0	2	13	15	16.2
50yr	4	7	6	1	1	0	0	0	0	1	11	12	14.5
013N-014N 052W-051W 100yr	3	10	7	3	3	1	1	0	0	5	13	18	15.5
50yr	3	9	6	3	2	0	1	0	0	3	12	15	15.0
013N-014N 051W-050W 100yr	5	13	7	6	3	1	1	0	0	5	18	23	15.9
50yr	5	12	6	6	2	0	1	0	0	3	17	20	15.4
013N-014N 050W-049W 100yr	7	15	7	8	3	3	0	0	0	6	22	28	15.8
50yr	7	12	5	7	3	2	0	0	0	5	19	24	15.6
013N-014N 049W-048W 100yr	3	16	8	8	2	2	0	1	0	5	19	24	16.2
50yr	3	12	7	5	2	2	0	1	0	5	15	20	16.2
013N-014N 048W-047W 100yr	2	14	9	5	1	2	0	1	0	4	16	20	16.2
50yr	2	10	7	3	1	2	0	1	0	4	12	16	16.1
013N-014N 047W-046W 100yr	3	12	8	4	2	1	0	2	0	5	15	20	15.7
50yr	3	9	6	3	2	1	0	2	0	5	12	17	15.6
013N-014N 046W-045W 100yr	4	10	7	3	1	1	0	2	0	4	14	18	15.7
50yr	4	7	4	3	1	1	0	2	0	4	11	15	15.9
013N-014N 045W-044W 100yr	5	8	6	2	1	0	3	0	0	4	13	17	15.5
50yr	5	6	4	2	1	0	3	0	0	4	11	15	16.0
013N-014N 044W-043W 100yr	6	9	7	2	1	2	1	0	0	4	15	19	15.0

Grid Cell	TD	TS	G	S	S1	S2	S3	S4	S5	H	<H	All	Spd
50yr	6	7	5	2	1	2	1	0	0	4	13	17	15.3
013N-014N 043W-042W 100yr	7	8	5	3	0	2	0	0	0	2	15	17	15.0
50yr	7	6	3	3	0	2	0	0	0	2	13	15	15.4
013N-014N 042W-041W 100yr	6	8	5	3	0	1	0	0	0	1	14	15	14.9
50yr	6	7	4	3	0	1	0	0	0	1	13	14	15.1
013N-014N 041W-040W 100yr	7	5	5	0	1	1	0	0	0	2	12	14	14.9
50yr	7	3	3	0	1	1	0	0	0	2	10	12	15.8
013N-014N 040W-039W 100yr	6	3	2	1	2	1	0	0	0	3	9	12	14.4
50yr	6	2	1	1	2	1	0	0	0	3	8	11	15.1
013N-014N 039W-038W 100yr	4	3	2	1	4	0	0	0	0	4	7	11	13.7
50yr	4	2	1	1	3	0	0	0	0	3	6	9	15.0
013N-014N 038W-037W 100yr	4	5	4	1	4	0	0	0	0	4	9	13	15.2
50yr	4	5	4	1	2	0	0	0	0	2	9	11	15.9
013N-014N 037W-036W 100yr	6	7	5	2	3	0	0	0	0	3	13	16	14.6
50yr	6	7	5	2	1	0	0	0	0	1	13	14	15.0
013N-014N 036W-035W 100yr	8	4	3	1	2	0	0	0	0	2	12	14	13.6
50yr	8	4	3	1	0	0	0	0	0	0	12	12	13.9
013N-014N 035W-034W 100yr	5	5	5	0	2	0	0	0	0	2	10	12	13.3
50yr	5	5	5	0	0	0	0	0	0	0	10	10	13.7
013N-014N 034W-033W 100yr	2	4	3	1	1	1	0	0	0	2	6	8	11.9
50yr	2	4	3	1	0	1	0	0	0	1	6	7	12.0
013N-014N 033W-032W 100yr	4	4	3	1	1	0	1	0	0	2	8	10	11.0
50yr	4	4	3	1	0	0	1	0	0	1	8	9	11.0
013N-014N 032W-031W 100yr	3	4	3	1	1	0	1	0	0	2	7	9	10.5
50yr	3	4	3	1	0	0	1	0	0	1	7	8	10.3
013N-014N 031W-030W 100yr	5	4	2	2	1	0	0	0	0	1	9	10	12.2
50yr	5	4	2	2	0	0	0	0	0	0	9	9	12.3
013N-014N 030W-029W 100yr	4	5	4	1	1	0	0	0	0	1	9	10	12.6
50yr	4	4	3	1	0	0	0	0	0	0	8	8	13.7
013N-014N 029W-028W 100yr	2	4	3	1	1	0	0	0	0	1	6	7	12.5
50yr	2	4	3	1	0	0	0	0	0	0	6	6	12.8
013N-014N 028W-027W 100yr	3	3	3	0	2	0	0	0	0	2	6	8	12.1
50yr	3	3	3	0	1	0	0	0	0	1	6	7	12.3
013N-014N 027W-026W 100yr	4	3	3	0	3	0	0	0	0	3	7	10	12.9
50yr	4	3	3	0	2	0	0	0	0	2	7	9	13.2
013N-014N 026W-025W 100yr	7	3	3	0	3	0	0	0	0	3	10	13	13.3
50yr	7	2	2	0	2	0	0	0	0	2	9	11	13.2
013N-014N 025W-024W 100yr	9	4	2	2	1	0	0	0	0	1	13	14	13.1
50yr	9	2	0	2	0	0	0	0	0	0	11	11	12.8
013N-014N 024W-023W 100yr	9	4	3	1	0	0	0	0	0	0	13	13	12.6
50yr	9	2	1	1	0	0	0	0	0	0	11	11	11.9
013N-014N 023W-022W 100yr	9	2	2	0	0	0	0	0	0	0	11	11	13.3
50yr	9	1	1	0	0	0	0	0	0	0	10	10	13.0
013N-014N 022W-021W 100yr	9	1	1	0	0	0	0	0	0	0	10	10	13.9
50yr	9	0	0	0	0	0	0	0	0	0	9	9	13.7
013N-014N 021W-020W 100yr	7	1	1	0	0	0	0	0	0	0	8	8	19.7
50yr	7	0	0	0	0	0	0	0	0	0	7	7	20.1
013N-014N 020W-019W 100yr	4	0	0	0	0	0	0	0	0	0	4	4	21.9

Grid Cell	TD	TS	G	S	S1	S2	S3	S4	S5	H	<H	All	Spd
50yr	4	0	0	0	0	0	0	0	0	0	4	4	21.9
013N-014N 019W-018W 100yr	2	1	1	0	0	0	0	0	0	0	3	3	14.3
50yr	2	1	1	0	0	0	0	0	0	0	3	3	14.3
013N-014N 018W-017W 100yr	2	0	0	0	0	0	0	0	0	0	2	2	14.0
50yr	2	0	0	0	0	0	0	0	0	0	2	2	14.0

014°N to 015°N

014N-015N 095W-094W 100yr	1	1	1	0	0	0	0	0	0	0	2	2	9.2
50yr	0	0	0	0	0	0	0	0	0	0	0	0	0.0
014N-015N 094W-093W 100yr	0	2	1	1	0	0	0	0	0	0	2	2	8.7
50yr	0	0	0	0	0	0	0	0	0	0	0	0	0.0
014N-015N 093W-092W 100yr	0	1	0	1	0	0	0	0	0	0	1	1	9.5
50yr	0	0	0	0	0	0	0	0	0	0	0	0	0.0
014N-015N 092W-091W 100yr	2	1	1	0	0	0	0	0	0	0	3	3	8.2
50yr	2	0	0	0	0	0	0	0	0	0	2	2	9.3
014N-015N 091W-090W 100yr	1	3	3	0	0	0	0	0	0	0	4	4	8.0
50yr	1	0	0	0	0	0	0	0	0	0	1	1	7.5
014N-015N 090W-089W 100yr	0	2	1	1	0	0	0	0	0	0	2	2	8.0
50yr	0	1	1	0	0	0	0	0	0	0	1	1	7.5
014N-015N 089W-088W 100yr	1	1	1	0	0	0	0	0	0	0	2	2	6.1
50yr	0	1	1	0	0	0	0	0	0	0	1	1	7.4
014N-015N 088W-087W 100yr	1	2	2	0	0	0	0	0	0	0	3	3	7.9
50yr	1	1	1	0	0	0	0	0	0	0	2	2	8.5
014N-015N 087W-086W 100yr	1	1	1	0	1	0	0	0	0	1	2	3	8.3
50yr	1	1	1	0	0	0	0	0	0	0	2	2	7.5
014N-015N 086W-085W 100yr	1	0	0	0	1	0	0	0	0	1	1	2	11.2
50yr	1	0	0	0	0	0	0	0	0	0	1	1	13.4
014N-015N 085W-084W 100yr	1	5	5	0	1	0	0	0	0	1	6	7	8.6
50yr	1	3	3	0	0	0	0	0	0	0	4	4	6.8
014N-015N 084W-083W 100yr	3	5	5	0	2	0	1	0	1	4	8	12	10.0
50yr	3	2	2	0	0	0	0	0	1	1	5	6	7.8
014N-015N 083W-082W 100yr	7	10	10	0	1	0	1	1	0	3	17	20	10.9
50yr	6	3	3	0	0	0	0	1	0	1	9	10	8.4
014N-015N 082W-081W 100yr	8	11	10	1	2	0	2	1	0	5	19	24	9.3
50yr	8	3	2	1	0	0	1	1	0	2	11	13	8.8
014N-015N 081W-080W 100yr	7	10	9	1	0	1	3	0	0	4	17	21	11.1
50yr	6	3	2	1	0	1	1	0	0	2	9	11	10.7
014N-015N 080W-079W 100yr	7	4	3	1	2	2	3	0	0	7	11	18	10.8
50yr	5	2	1	1	1	1	1	0	0	3	7	10	11.5
014N-015N 079W-078W 100yr	7	7	5	2	6	2	3	0	0	11	14	25	10.8
50yr	5	2	1	1	2	2	1	0	0	5	7	12	12.5
014N-015N 078W-077W 100yr	5	5	3	2	8	1	1	1	0	11	10	21	11.1
50yr	4	2	1	1	3	0	1	1	0	5	6	11	12.2
014N-015N 077W-076W 100yr	4	7	6	1	6	1	1	1	0	9	11	20	11.4
50yr	3	2	2	0	1	0	1	1	0	3	5	8	12.5
014N-015N 076W-075W 100yr	3	8	4	4	4	1	0	2	0	7	11	18	12.4

Grid Cell		TD	TS	G	S	S1	S2	S3	S4	S5	H	<H	All	Spd
	50yr	3	0	0	0	2	1	0	2	0	5	3	8	13.0
014N-015N 075W-074W	100yr	3	9	4	5	3	1	0	2	0	6	12	18	13.1
	50yr	3	1	0	1	1	1	0	2	0	4	4	8	14.3
014N-015N 074W-073W	100yr	1	9	6	3	5	0	0	1	0	6	10	16	14.5
	50yr	1	1	1	0	3	0	0	1	0	4	2	6	17.0
014N-015N 073W-072W	100yr	1	9	6	3	4	0	0	0	0	4	10	14	14.0
	50yr	1	1	1	0	2	0	0	0	0	2	2	4	17.2
014N-015N 072W-071W	100yr	2	7	5	2	2	1	0	0	0	3	9	12	13.1
	50yr	2	0	0	0	1	1	0	0	0	2	2	4	16.3
014N-015N 071W-070W	100yr	0	11	7	4	2	1	0	0	0	3	11	14	13.9
	50yr	0	1	1	0	1	1	0	0	0	2	1	3	18.2
014N-015N 070W-069W	100yr	0	12	9	3	3	2	0	1	0	6	12	18	14.3
	50yr	0	1	1	0	1	1	0	1	0	3	1	4	16.4
014N-015N 069W-068W	100yr	1	12	9	3	3	2	0	1	0	6	13	19	14.3
	50yr	1	2	2	0	1	1	0	1	0	3	3	6	15.9
014N-015N 068W-067W	100yr	0	11	7	4	4	2	1	0	1	8	11	19	13.0
	50yr	0	1	0	1	0	1	1	0	1	3	1	4	17.0
014N-015N 067W-066W	100yr	1	11	7	4	5	3	0	0	1	9	12	21	12.4
	50yr	1	3	0	3	0	2	0	0	1	3	4	7	15.5
014N-015N 066W-065W	100yr	4	13	8	5	4	2	1	1	0	8	17	25	13.7
	50yr	3	3	1	2	0	1	1	1	0	3	6	9	14.0
014N-015N 065W-064W	100yr	5	20	12	8	6	1	1	1	0	9	25	34	13.6
	50yr	4	5	1	4	1	1	1	1	0	4	9	13	14.4
014N-015N 064W-063W	100yr	3	16	11	5	7	1	1	1	0	10	19	29	13.9
	50yr	3	5	1	4	2	1	1	1	0	5	8	13	14.6
014N-015N 063W-062W	100yr	5	19	14	5	5	1	1	1	0	8	24	32	14.2
	50yr	5	4	2	2	2	1	1	1	0	5	9	14	14.8
014N-015N 062W-061W	100yr	4	21	16	5	3	2	0	0	0	5	25	30	14.6
	50yr	4	8	5	3	1	2	0	0	0	3	12	15	13.8
014N-015N 061W-060W	100yr	3	19	16	3	5	0	0	1	0	6	22	28	15.4
	50yr	3	7	5	2	3	0	0	1	0	4	10	14	14.2
014N-015N 060W-059W	100yr	4	17	13	4	4	0	1	1	0	6	21	27	16.6
	50yr	4	7	4	3	2	0	1	1	0	4	11	15	15.3
014N-015N 059W-058W	100yr	3	14	10	4	4	0	1	1	0	6	17	23	14.8
	50yr	3	6	3	3	2	0	1	1	0	4	9	13	12.9
014N-015N 058W-057W	100yr	4	16	9	7	2	0	1	0	0	3	20	23	13.4
	50yr	4	8	3	5	0	0	1	0	0	1	12	13	12.8
014N-015N 057W-056W	100yr	5	13	7	6	4	0	1	0	1	6	18	24	13.3
	50yr	5	6	3	3	3	0	1	0	1	5	11	16	13.2
014N-015N 056W-055W	100yr	3	12	8	4	4	0	1	0	1	6	15	21	13.7
	50yr	3	9	6	3	3	0	1	0	1	5	12	17	13.5
014N-015N 055W-054W	100yr	5	7	2	5	4	0	1	0	1	6	12	18	14.3
	50yr	5	6	2	4	3	0	1	0	1	5	11	16	13.7
014N-015N 054W-053W	100yr	9	9	4	5	5	0	1	1	0	7	18	25	14.2
	50yr	9	8	3	5	3	0	1	1	0	5	17	22	13.9
014N-015N 053W-052W	100yr	8	10	4	6	3	1	3	1	0	8	18	26	15.1
	50yr	8	9	3	6	1	0	3	1	0	5	17	22	14.8
014N-015N 052W-051W	100yr	8	14	7	7	5	1	2	1	0	9	22	31	15.7

Grid Cell	TD	TS	G	S	S1	S2	S3	S4	S5	H	<H	All	Spd
50yr	8	12	5	7	3	0	2	1	0	6	20	26	15.8
014N-015N 051W-050W 100yr	8	17	9	8	3	2	0	1	0	6	25	31	15.8
50yr	8	12	7	5	2	2	0	1	0	5	20	25	16.0
014N-015N 050W-049W 100yr	7	9	4	5	3	2	0	1	0	6	16	22	15.7
50yr	7	5	3	2	2	2	0	1	0	5	12	17	15.7
014N-015N 049W-048W 100yr	8	11	6	5	1	0	0	2	0	3	19	22	15.8
50yr	8	7	4	3	0	0	0	2	0	2	15	17	15.5
014N-015N 048W-047W 100yr	6	10	6	4	2	0	0	1	0	3	16	19	14.6
50yr	6	7	4	3	1	0	0	1	0	2	13	15	14.3
014N-015N 047W-046W 100yr	9	8	5	3	2	0	0	1	0	3	17	20	13.4
50yr	9	4	2	2	1	0	0	1	0	2	13	15	14.0
014N-015N 046W-045W 100yr	7	12	8	4	2	0	0	2	0	4	19	23	13.2
50yr	7	9	5	4	1	0	0	2	0	3	16	19	14.0
014N-015N 045W-044W 100yr	9	8	7	1	3	1	1	1	0	6	17	23	14.5
50yr	9	6	5	1	2	1	1	1	0	5	15	20	15.4
014N-015N 044W-043W 100yr	8	5	5	0	3	2	0	0	0	5	13	18	15.2
50yr	8	3	3	0	2	2	0	0	0	4	11	15	15.8
014N-015N 043W-042W 100yr	5	8	4	4	3	2	0	0	0	5	13	18	14.9
50yr	5	6	3	3	2	2	0	0	0	4	11	15	15.4
014N-015N 042W-041W 100yr	2	10	5	5	2	2	0	0	0	4	12	16	13.7
50yr	2	7	3	4	1	2	0	0	0	3	9	12	14.8
014N-015N 041W-040W 100yr	2	6	4	2	3	2	0	0	0	5	8	13	12.9
50yr	2	4	3	1	2	2	0	0	0	4	6	10	13.9
014N-015N 040W-039W 100yr	1	4	2	2	4	1	0	0	0	5	5	10	12.1
50yr	1	3	2	1	2	1	0	0	0	3	4	7	13.0
014N-015N 039W-038W 100yr	1	6	5	1	3	0	0	0	0	3	7	10	13.5
50yr	1	4	4	0	2	0	0	0	0	2	5	7	14.9
014N-015N 038W-037W 100yr	1	9	7	2	2	0	0	0	0	2	10	12	14.0
50yr	1	7	6	1	1	0	0	0	0	1	8	9	15.0
014N-015N 037W-036W 100yr	3	7	4	3	2	0	0	0	0	2	10	12	15.2
50yr	3	5	3	2	1	0	0	0	0	1	8	9	16.0
014N-015N 036W-035W 100yr	1	5	3	2	2	0	1	0	0	3	6	9	13.4
50yr	1	3	2	1	1	0	1	0	0	2	4	6	13.7
014N-015N 035W-034W 100yr	2	5	3	2	3	1	1	0	0	5	7	12	12.8
50yr	2	4	2	2	2	1	1	0	0	4	6	10	12.5
014N-015N 034W-033W 100yr	3	6	5	1	5	1	0	0	0	6	9	15	13.4
50yr	3	5	4	1	4	1	0	0	0	5	8	13	13.3
014N-015N 033W-032W 100yr	4	7	5	2	3	0	0	0	0	3	11	14	13.5
50yr	4	6	4	2	2	0	0	0	0	2	10	12	13.2
014N-015N 032W-031W 100yr	7	7	5	2	2	0	0	0	0	2	14	16	13.8
50yr	7	6	4	2	1	0	0	0	0	1	13	14	13.6
014N-015N 031W-030W 100yr	6	7	4	3	2	1	0	0	0	3	13	16	14.0
50yr	6	6	3	3	0	1	0	0	0	1	12	13	14.1
014N-015N 030W-029W 100yr	2	6	5	1	3	0	0	0	0	3	8	11	12.8
50yr	2	4	3	1	1	0	0	0	0	1	6	7	13.8
014N-015N 029W-028W 100yr	2	5	5	0	3	0	0	0	0	3	7	10	13.1
50yr	2	3	3	0	1	0	0	0	0	1	5	6	13.2
014N-015N 028W-027W 100yr	3	4	4	0	3	0	0	0	0	3	7	10	13.0

Grid Cell	TD	TS	G	S	S1	S2	S3	S4	S5	H	<H	All	Spd
50yr	3	2	2	0	1	0	0	0	0	1	5	6	13.3
014N-015N 027W-026W 100yr	3	4	4	0	2	0	0	0	0	2	7	9	14.2
50yr	3	2	2	0	0	0	0	0	0	0	5	5	15.3
014N-015N 026W-025W 100yr	2	5	5	0	2	0	0	0	0	2	7	9	12.8
50yr	2	3	3	0	0	0	0	0	0	0	5	5	12.7
014N-015N 025W-024W 100yr	2	3	3	0	2	0	0	0	0	2	5	7	13.4
50yr	2	2	2	0	0	0	0	0	0	0	4	4	14.8
014N-015N 024W-023W 100yr	5	2	2	0	2	0	0	0	0	2	7	9	14.1
50yr	5	1	1	0	0	0	0	0	0	0	6	6	14.5
014N-015N 023W-022W 100yr	4	2	1	1	1	0	0	0	0	1	6	7	16.4
50yr	4	0	0	0	0	0	0	0	0	0	4	4	16.9
014N-015N 022W-021W 100yr	3	3	1	2	0	0	0	0	0	0	6	6	14.9
50yr	3	0	0	0	0	0	0	0	0	0	3	3	14.4
014N-015N 021W-020W 100yr	3	2	1	1	0	0	0	0	0	0	5	5	13.9
50yr	3	0	0	0	0	0	0	0	0	0	3	3	15.2
014N-015N 020W-019W 100yr	2	2	1	1	0	0	0	0	0	0	4	4	11.2
50yr	2	1	1	0	0	0	0	0	0	0	3	3	11.3
014N-015N 019W-018W 100yr	2	1	1	0	0	0	0	0	0	0	3	3	11.3
50yr	2	1	1	0	0	0	0	0	0	0	3	3	11.3
014N-015N 018W-017W 100yr	1	0	0	0	0	0	0	0	0	0	1	1	19.8
50yr	1	0	0	0	0	0	0	0	0	0	1	1	19.8

015°N to 016°N

Grid Cell	TD	TS	G	S	S1	S2	S3	S4	S5	H	<H	All	Spd
015N-016N 096W-095W 100yr	0	1	1	0	0	0	0	0	0	0	1	1	11.8
50yr	0	0	0	0	0	0	0	0	0	0	0	0	0.0
015N-016N 095W-094W 100yr	0	2	2	0	0	0	0	0	0	0	2	2	14.0
50yr	0	0	0	0	0	0	0	0	0	0	0	0	0.0
015N-016N 094W-093W 100yr	2	2	1	1	0	0	0	0	0	0	4	4	10.5
50yr	1	0	0	0	0	0	0	0	0	0	1	1	10.1
015N-016N 093W-092W 100yr	2	2	1	1	0	0	0	0	0	0	4	4	10.0
50yr	2	0	0	0	0	0	0	0	0	0	2	2	10.7
015N-016N 092W-091W 100yr	3	2	1	1	0	0	0	0	0	0	5	5	9.5
50yr	3	0	0	0	0	0	0	0	0	0	3	3	10.8
015N-016N 091W-090W 100yr	0	6	3	3	0	0	0	0	0	0	6	6	9.0
50yr	0	2	0	2	0	0	0	0	0	0	2	2	8.6
015N-016N 090W-089W 100yr	0	4	1	3	0	0	0	0	0	0	4	4	9.7
50yr	0	2	0	2	0	0	0	0	0	0	2	2	7.9
015N-016N 089W-088W 100yr	0	4	2	2	0	0	0	0	0	0	4	4	7.9
50yr	0	2	1	1	0	0	0	0	0	0	2	2	4.6
015N-016N 088W-087W 100yr	1	1	1	0	0	1	0	0	0	1	2	3	8.7
50yr	1	0	0	0	0	0	0	0	0	0	1	1	10.2
015N-016N 087W-086W 100yr	1	1	0	1	0	1	0	0	0	1	2	3	11.1
50yr	1	1	0	1	0	0	0	0	0	0	2	2	10.2
015N-016N 086W-085W 100yr	1	4	4	0	2	1	1	0	0	4	5	9	12.8

Grid Cell	TD	TS	G	S	S1	S2	S3	S4	S5	H	<H	All	Spd
50yr	1	2	2	0	2	1	0	0	0	3	3	6	9.4
015N-016N 085W-084W 100yr	1	12	10	2	1	1	1	1	1	5	13	18	11.8
50yr	1	4	3	1	0	1	0	1	1	3	5	8	10.4
015N-016N 084W-083W 100yr	5	14	11	3	3	1	2	0	1	7	19	26	12.0
50yr	5	3	1	2	0	1	1	0	1	3	8	11	10.7
015N-016N 083W-082W 100yr	7	22	18	4	3	1	1	0	0	5	29	34	12.1
50yr	7	7	5	2	0	1	1	0	0	2	14	16	10.1
015N-016N 082W-081W 100yr	8	19	14	5	3	1	2	0	0	6	27	33	12.0
50yr	8	6	4	2	0	1	2	0	0	3	14	17	11.5
015N-016N 081W-080W 100yr	5	14	12	2	1	3	2	0	0	6	19	25	11.9
50yr	5	3	3	0	0	1	1	0	0	2	8	10	12.9
015N-016N 080W-079W 100yr	4	8	6	2	2	3	1	1	0	7	12	19	11.3
50yr	4	2	1	1	0	0	1	1	0	2	6	8	11.2
015N-016N 079W-078W 100yr	3	11	7	4	5	0	1	1	0	7	14	21	9.8
50yr	3	3	2	1	1	0	1	1	0	3	6	9	8.9
015N-016N 078W-077W 100yr	2	14	7	7	6	0	0	1	0	7	16	23	10.7
50yr	2	4	1	3	1	0	0	1	0	2	6	8	9.9
015N-016N 077W-076W 100yr	1	12	4	8	4	2	0	0	0	6	13	19	10.5
50yr	1	3	0	3	0	1	0	0	0	1	4	5	10.4
015N-016N 076W-075W 100yr	2	14	3	11	2	2	1	0	0	5	16	21	13.0
50yr	2	3	0	3	1	1	1	0	0	3	5	8	10.5
015N-016N 075W-074W 100yr	1	12	4	8	5	1	0	0	0	6	13	19	14.2
50yr	1	2	0	2	3	0	0	0	0	3	3	6	10.6
015N-016N 074W-073W 100yr	0	9	4	5	4	3	0	0	0	7	9	16	15.4
50yr	0	1	1	0	3	1	0	0	0	4	1	5	12.9
015N-016N 073W-072W 100yr	2	10	5	5	3	3	0	0	0	6	12	18	15.2
50yr	2	1	1	0	1	1	0	0	0	2	3	5	14.4
015N-016N 072W-071W 100yr	2	10	5	5	3	2	0	1	0	6	12	18	13.7
50yr	2	2	1	1	1	0	0	1	0	2	4	6	15.0
015N-016N 071W-070W 100yr	1	9	6	3	2	5	0	1	1	9	10	19	14.4
50yr	1	3	2	1	0	1	0	1	1	3	4	7	15.6
015N-016N 070W-069W 100yr	1	8	7	1	1	5	0	1	1	8	9	17	14.4
50yr	1	3	2	1	0	1	0	1	1	3	4	7	15.7
015N-016N 069W-068W 100yr	4	7	5	2	4	4	0	0	1	9	11	20	13.7
50yr	3	3	2	1	1	1	0	0	1	3	6	9	15.5
015N-016N 068W-067W 100yr	4	8	5	3	5	4	1	0	1	11	12	23	13.7
50yr	3	2	1	1	2	2	1	0	1	6	5	11	14.7
015N-016N 067W-066W 100yr	3	9	5	4	5	3	0	0	0	8	12	20	14.8
50yr	3	4	2	2	4	1	0	0	0	5	7	12	14.5
015N-016N 066W-065W 100yr	4	10	6	4	5	1	1	0	0	7	14	21	13.4
50yr	4	4	2	2	3	0	1	0	0	4	8	12	13.2
015N-016N 065W-064W 100yr	4	13	8	5	4	2	0	0	1	7	17	24	12.9
50yr	4	5	2	3	2	2	0	0	1	5	9	14	14.2
015N-016N 064W-063W 100yr	3	13	10	3	4	0	0	1	0	5	16	21	13.4
50yr	3	4	4	0	2	0	0	1	0	3	7	10	15.1
015N-016N 063W-062W 100yr	4	13	12	1	3	1	0	1	0	5	17	22	13.9
50yr	4	4	4	0	2	0	0	1	0	3	8	11	14.5
015N-016N 062W-061W 100yr	4	12	10	2	2	2	0	2	0	6	16	22	14.5

Grid Cell	TD	TS	G	S	S1	S2	S3	S4	S5	H	<H	All	Spd
50yr	4	6	4	2	1	1	0	2	0	4	10	14	14.4
015N-016N 061W-060W 100yr	1	12	8	4	3	0	2	2	0	7	13	20	12.9
50yr	1	5	3	2	1	0	2	2	0	5	6	11	13.3
015N-016N 060W-059W 100yr	4	11	7	4	5	1	3	1	0	10	15	25	12.6
50yr	4	6	3	3	1	1	2	1	0	5	10	15	12.6
015N-016N 059W-058W 100yr	5	12	10	2	7	0	2	1	0	10	17	27	12.8
50yr	5	6	4	2	2	0	1	1	0	4	11	15	12.8
015N-016N 058W-057W 100yr	6	9	6	3	7	3	1	1	0	12	15	27	13.7
50yr	6	5	3	2	2	1	1	1	0	5	11	16	14.6
015N-016N 057W-056W 100yr	5	8	6	2	11	2	0	3	0	16	13	29	14.3
50yr	5	6	4	2	6	0	0	3	0	9	11	20	14.8
015N-016N 056W-055W 100yr	5	9	4	5	8	1	0	2	0	11	14	25	15.2
50yr	5	6	3	3	5	0	0	2	0	7	11	18	15.7
015N-016N 055W-054W 100yr	8	10	4	6	6	1	0	2	0	9	18	27	15.0
50yr	8	7	3	4	4	0	0	2	0	6	15	21	15.5
015N-016N 054W-053W 100yr	7	10	5	5	7	1	0	2	0	10	17	27	15.0
50yr	7	8	3	5	5	0	0	2	0	7	15	22	15.1
015N-016N 053W-052W 100yr	5	15	8	7	3	2	1	1	0	7	20	27	15.3
50yr	5	12	6	6	2	1	1	1	0	5	17	22	15.6
015N-016N 052W-051W 100yr	4	14	8	6	3	1	0	0	0	4	18	22	15.1
50yr	4	10	6	4	2	1	0	0	0	3	14	17	15.4
015N-016N 051W-050W 100yr	3	13	9	4	5	1	0	0	0	6	16	22	14.6
50yr	3	10	8	2	3	1	0	0	0	4	13	17	15.2
015N-016N 050W-049W 100yr	5	10	7	3	6	1	0	1	0	8	15	23	14.6
50yr	5	9	7	2	3	1	0	1	0	5	14	19	14.4
015N-016N 049W-048W 100yr	5	10	6	4	5	0	1	2	0	8	15	23	14.9
50yr	5	7	5	2	3	0	1	2	0	6	12	18	15.2
015N-016N 048W-047W 100yr	6	12	6	6	4	0	1	1	0	6	18	24	14.2
50yr	6	7	5	2	3	0	1	1	0	5	13	18	14.9
015N-016N 047W-046W 100yr	8	12	5	7	2	1	0	2	0	5	20	25	14.1
50yr	8	6	3	3	2	1	0	2	0	5	14	19	14.7
015N-016N 046W-045W 100yr	4	10	4	6	2	1	0	2	0	5	14	19	15.3
50yr	4	6	3	3	1	1	0	2	0	4	10	14	15.5
015N-016N 045W-044W 100yr	2	6	3	3	2	1	0	0	0	3	8	11	16.0
50yr	2	1	1	0	2	1	0	0	0	3	3	6	17.1
015N-016N 044W-043W 100yr	1	5	3	2	2	1	1	0	0	4	6	10	13.3
50yr	1	1	1	0	2	1	1	0	0	4	2	6	13.0
015N-016N 043W-042W 100yr	1	7	3	4	3	1	2	0	0	6	8	14	13.3
50yr	1	3	1	2	2	1	2	0	0	5	4	9	13.0
015N-016N 042W-041W 100yr	2	6	4	2	2	1	1	0	0	4	8	12	15.4
50yr	2	2	1	1	1	1	1	0	0	3	4	7	16.8
015N-016N 041W-040W 100yr	3	7	7	0	4	2	0	0	0	6	10	16	15.1
50yr	3	5	5	0	3	1	0	0	0	4	8	12	16.0
015N-016N 040W-039W 100yr	4	8	7	1	5	1	0	0	0	6	12	18	15.5
50yr	4	7	6	1	4	0	0	0	0	4	11	15	15.9
015N-016N 039W-038W 100yr	3	11	9	2	1	2	1	0	0	4	14	18	16.1
50yr	3	9	7	2	1	1	1	0	0	3	12	15	16.5
015N-016N 038W-037W 100yr	4	9	7	2	3	1	1	0	0	5	13	18	16.2

Grid Cell	TD	TS	G	S	S1	S2	S3	S4	S5	H	<H	All	Spd
50yr	4	7	5	2	2	1	1	0	0	4	11	15	16.2
015N-016N 037W-036W 100yr	3	8	5	3	5	0	1	0	0	6	11	17	16.2
50yr	3	6	3	3	4	0	1	0	0	5	9	14	16.2
015N-016N 036W-035W 100yr	4	11	6	5	2	1	1	0	0	4	15	19	14.7
50yr	4	9	4	5	1	1	1	0	0	3	13	16	14.6
015N-016N 035W-034W 100yr	2	10	8	2	2	1	0	0	0	3	12	15	13.4
50yr	2	8	6	2	1	1	0	0	0	2	10	12	12.9
015N-016N 034W-033W 100yr	3	9	9	0	1	1	0	0	0	2	12	14	13.6
50yr	3	6	6	0	0	1	0	0	0	1	9	10	12.6
015N-016N 033W-032W 100yr	4	5	5	0	1	1	0	0	0	2	9	11	12.9
50yr	4	3	3	0	0	1	0	0	0	1	7	8	12.0
015N-016N 032W-031W 100yr	4	3	3	0	1	1	0	0	0	2	7	9	12.9
50yr	4	1	1	0	0	1	0	0	0	1	5	6	12.5
015N-016N 031W-030W 100yr	0	5	4	1	1	1	0	0	0	2	5	7	12.5
50yr	0	3	2	1	0	1	0	0	0	1	3	4	11.9
015N-016N 030W-029W 100yr	0	5	4	1	2	0	0	0	0	2	5	7	12.3
50yr	0	2	1	1	1	0	0	0	0	1	2	3	14.2
015N-016N 029W-028W 100yr	0	4	4	0	1	0	0	0	0	1	4	5	14.0
50yr	0	2	2	0	1	0	0	0	0	1	2	3	14.4
015N-016N 028W-027W 100yr	0	4	4	0	1	0	0	0	0	1	4	5	14.7
50yr	0	3	3	0	1	0	0	0	0	1	3	4	15.4
015N-016N 027W-026W 100yr	1	5	5	0	1	0	0	0	0	1	6	7	13.9
50yr	1	3	3	0	1	0	0	0	0	1	4	5	15.6
015N-016N 026W-025W 100yr	1	4	4	0	1	0	0	0	0	1	5	6	12.8
50yr	1	2	2	0	1	0	0	0	0	1	3	4	14.7
015N-016N 025W-024W 100yr	3	3	2	1	0	0	0	0	0	0	6	6	14.0
50yr	3	2	1	1	0	0	0	0	0	0	5	5	15.1
015N-016N 024W-023W 100yr	4	1	1	0	0	0	0	0	0	0	5	5	15.8
50yr	4	0	0	0	0	0	0	0	0	0	4	4	17.9
015N-016N 023W-022W 100yr	3	1	1	0	0	0	0	0	0	0	4	4	14.6
50yr	3	0	0	0	0	0	0	0	0	0	3	3	17.2
015N-016N 022W-021W 100yr	4	1	1	0	0	0	0	0	0	0	5	5	14.9
50yr	4	0	0	0	0	0	0	0	0	0	4	4	17.2
015N-016N 021W-020W 100yr	4	0	0	0	0	0	0	0	0	0	4	4	17.1
50yr	4	0	0	0	0	0	0	0	0	0	4	4	17.1
015N-016N 020W-019W 100yr	1	1	1	0	0	0	0	0	0	0	2	2	9.1
50yr	1	1	1	0	0	0	0	0	0	0	2	2	9.1
015N-016N 019W-018W 100yr	1	0	0	0	0	0	0	0	0	0	1	1	9.6
50yr	1	0	0	0	0	0	0	0	0	0	1	1	9.6

016°N to 017°N

Grid Cell	TD	TS	G	S	S1	S2	S3	S4	S5	H	<H	All	Spd
016N-017N 097W-096W 100yr	0	1	1	0	0	0	0	0	0	0	1	1	1.2
50yr	0	1	1	0	0	0	0	0	0	0	1	1	1.2
016N-017N 096W-095W 100yr	0	2	2	0	0	0	0	0	0	0	2	2	6.5
50yr	0	1	1	0	0	0	0	0	0	0	1	1	1.2
016N-017N 095W-094W 100yr	0	1	0	1	0	0	0	0	0	0	1	1	14.4

Grid Cell	TD	TS	G	S	S1	S2	S3	S4	S5	H	<H	All	Spd
50yr	0	0	0	0	0	0	0	0	0	0	0	0	0.0
016N-017N 094W-093W 100yr	1	1	1	0	0	0	0	0	0	0	2	2	11.7
50yr	1	1	1	0	0	0	0	0	0	0	2	2	11.7
016N-017N 093W-092W 100yr	3	2	0	2	0	0	0	0	0	0	5	5	9.7
50yr	2	1	0	1	0	0	0	0	0	0	3	3	11.9
016N-017N 092W-091W 100yr	3	2	0	2	0	0	0	0	0	0	5	5	13.8
50yr	3	1	0	1	0	0	0	0	0	0	4	4	12.6
016N-017N 091W-090W 100yr	1	9	4	5	0	0	0	0	0	0	10	10	12.0
50yr	0	3	1	2	0	0	0	0	0	0	3	3	13.2
016N-017N 090W-089W 100yr	1	5	2	3	5	2	0	0	0	7	6	13	10.4
50yr	0	2	0	2	3	2	0	0	0	5	2	7	9.1
016N-017N 089W-088W 100yr	0	10	6	4	3	3	1	1	0	8	10	18	9.7
50yr	0	4	2	2	2	2	1	1	0	6	4	10	8.3
016N-017N 088W-087W 100yr	2	12	10	2	3	4	2	0	0	9	14	23	10.5
50yr	1	4	2	2	2	2	2	0	0	6	5	11	9.6
016N-017N 087W-086W 100yr	4	10	8	2	3	3	2	0	0	8	14	22	12.4
50yr	3	2	0	2	2	2	2	0	0	6	5	11	10.3
016N-017N 086W-085W 100yr	1	12	10	2	5	3	0	1	1	10	13	23	11.3
50yr	1	2	0	2	3	2	0	1	1	7	3	10	9.4
016N-017N 085W-084W 100yr	4	22	18	4	4	1	0	1	0	6	26	32	10.1
50yr	4	6	4	2	1	1	0	1	0	3	10	13	9.8
016N-017N 084W-083W 100yr	7	25	21	4	2	2	0	0	1	5	32	37	10.1
50yr	7	8	7	1	0	1	0	0	1	2	15	17	9.3
016N-017N 083W-082W 100yr	7	24	23	1	6	3	0	0	2	11	31	42	11.1
50yr	7	7	7	0	1	1	0	0	2	4	14	18	10.1
016N-017N 082W-081W 100yr	6	21	15	6	4	1	2	1	1	9	27	36	10.4
50yr	6	6	4	2	2	0	1	1	1	5	12	17	10.4
016N-017N 081W-080W 100yr	2	16	11	5	5	3	2	2	0	12	18	30	9.7
50yr	2	3	2	1	1	1	0	2	0	4	5	9	9.9
016N-017N 080W-079W 100yr	1	15	7	8	7	4	0	3	0	14	16	30	10.7
50yr	1	5	2	3	1	0	0	2	0	3	6	9	9.7
016N-017N 079W-078W 100yr	0	15	5	10	6	2	1	0	0	9	15	24	12.3
50yr	0	5	2	3	1	0	1	0	0	2	5	7	9.5
016N-017N 078W-077W 100yr	0	16	7	9	6	2	0	0	0	8	16	24	13.1
50yr	0	5	3	2	0	0	0	0	0	0	5	5	11.3
016N-017N 077W-076W 100yr	2	11	3	8	6	2	0	0	0	8	13	21	13.6
50yr	2	2	1	1	1	0	0	0	0	1	4	5	14.6
016N-017N 076W-075W 100yr	3	11	3	8	3	2	1	0	0	6	14	20	16.5
50yr	3	2	1	1	1	0	1	0	0	2	5	7	14.8
016N-017N 075W-074W 100yr	4	10	4	6	1	4	1	0	0	6	14	20	15.4
50yr	4	2	0	2	0	1	1	0	0	2	6	8	12.9
016N-017N 074W-073W 100yr	3	8	4	4	0	5	1	0	0	6	11	17	15.1
50yr	3	2	2	0	0	2	0	0	0	2	5	7	15.5
016N-017N 073W-072W 100yr	3	9	6	3	0	3	3	1	1	8	12	20	14.8
50yr	3	2	2	0	0	1	2	1	1	5	5	10	15.3
016N-017N 072W-071W 100yr	3	8	5	3	1	4	2	2	1	10	11	21	15.4
50yr	3	3	2	1	0	2	1	2	1	6	6	12	15.8
016N-017N 071W-070W 100yr	2	4	2	2	2	4	2	1	1	10	6	16	16.2

Grid Cell		TD	TS	G	S	S1	S2	S3	S4	S5	H	<H	All	Spd
	50yr	1	2	1	1	0	2	1	1	1	5	3	8	16.5
016N-017N 070W-069W	100yr	2	4	2	2	5	4	1	1	0	11	6	17	16.2
	50yr	1	2	1	1	1	2	1	1	0	5	3	8	16.6
016N-017N 069W-068W	100yr	1	5	4	1	8	2	0	1	1	12	6	18	14.6
	50yr	1	2	2	0	3	1	0	1	1	6	3	9	15.4
016N-017N 068W-067W	100yr	3	10	8	2	6	2	1	3	1	13	13	26	13.7
	50yr	3	5	4	1	4	1	1	3	1	10	8	18	13.9
016N-017N 067W-066W	100yr	3	10	7	3	6	1	1	3	1	12	13	25	12.8
	50yr	3	5	3	2	3	0	1	3	1	8	8	16	13.0
016N-017N 066W-065W	100yr	2	9	5	4	6	1	1	3	1	12	11	23	13.0
	50yr	2	3	2	1	2	0	1	3	1	7	5	12	13.1
016N-017N 065W-064W	100yr	3	13	6	7	6	1	0	2	1	10	16	26	13.9
	50yr	3	4	3	1	3	0	0	2	1	6	7	13	14.4
016N-017N 064W-063W	100yr	3	13	7	6	7	1	1	3	0	12	16	28	14.4
	50yr	3	5	3	2	3	0	1	2	0	6	8	14	13.7
016N-017N 063W-062W	100yr	6	14	8	6	6	1	1	3	0	11	20	31	14.0
	50yr	6	6	4	2	2	0	1	2	0	5	12	17	13.8
016N-017N 062W-061W	100yr	9	16	7	9	3	3	4	2	0	12	25	37	12.5
	50yr	9	9	3	6	0	2	2	2	0	6	18	24	12.7
016N-017N 061W-060W	100yr	7	12	5	7	6	1	3	2	1	13	19	32	12.0
	50yr	7	6	2	4	3	0	1	2	1	7	13	20	12.3
016N-017N 060W-059W	100yr	8	10	7	3	8	2	2	2	1	15	18	33	12.5
	50yr	8	5	2	3	3	1	0	2	1	7	13	20	12.4
016N-017N 059W-058W	100yr	5	11	8	3	8	3	0	2	1	14	16	30	13.4
	50yr	5	8	5	3	3	2	0	2	1	8	13	21	13.7
016N-017N 058W-057W	100yr	8	9	6	3	7	3	0	2	1	13	17	30	14.9
	50yr	8	5	3	2	3	2	0	2	1	8	13	21	15.3
016N-017N 057W-056W	100yr	6	11	5	6	4	1	1	3	0	9	17	26	17.1
	50yr	6	7	4	3	3	1	0	3	0	7	13	20	16.9
016N-017N 056W-055W	100yr	6	14	10	4	4	2	1	0	0	7	20	27	16.3
	50yr	6	10	7	3	2	2	0	0	0	4	16	20	16.8
016N-017N 055W-054W	100yr	4	12	8	4	4	2	1	0	0	7	16	23	15.6
	50yr	4	8	6	2	2	2	0	0	0	4	12	16	16.0
016N-017N 054W-053W	100yr	2	9	7	2	6	2	0	0	0	8	11	19	15.2
	50yr	2	7	6	1	3	2	0	0	0	5	9	14	15.3
016N-017N 053W-052W	100yr	3	13	9	4	4	1	0	0	0	5	16	21	14.7
	50yr	3	10	8	2	1	1	0	0	0	2	13	15	14.9
016N-017N 052W-051W	100yr	3	8	5	3	6	1	1	0	0	8	11	19	14.8
	50yr	3	7	5	2	2	1	1	0	0	4	10	14	14.8
016N-017N 051W-050W	100yr	2	7	5	2	8	1	1	1	0	11	9	20	13.5
	50yr	2	7	5	2	4	1	1	1	0	7	9	16	13.3
016N-017N 050W-049W	100yr	3	8	4	4	5	0	1	2	0	8	11	19	13.9
	50yr	3	6	4	2	3	0	1	2	0	6	9	15	13.7
016N-017N 049W-048W	100yr	1	9	5	4	4	0	1	1	0	6	10	16	13.5
	50yr	1	6	4	2	3	0	1	1	0	5	7	12	13.9
016N-017N 048W-047W	100yr	3	7	3	4	4	1	0	1	0	6	10	16	13.1
	50yr	3	3	2	1	2	1	0	1	0	4	6	10	14.0
016N-017N 047W-046W	100yr	4	4	1	3	3	1	0	2	0	6	8	14	14.6

Grid Cell	TD	TS	G	S	S1	S2	S3	S4	S5	H	<H	All	Spd
50yr	4	2	1	1	2	1	0	2	0	5	6	11	14.8
016N-017N 046W-045W 100yr	2	8	2	6	5	2	0	1	0	8	10	18	15.0
50yr	2	4	2	2	3	1	0	1	0	5	6	11	15.9
016N-017N 045W-044W 100yr	0	9	4	5	5	3	0	1	0	9	9	18	14.1
50yr	0	4	3	1	4	2	0	1	0	7	4	11	14.5
016N-017N 044W-043W 100yr	3	9	5	4	4	3	1	1	0	9	12	21	14.0
50yr	3	5	4	1	3	2	1	1	0	7	8	15	14.2
016N-017N 043W-042W 100yr	4	9	6	3	5	1	1	1	0	8	13	21	13.6
50yr	4	6	4	2	4	0	1	1	0	6	10	16	13.9
016N-017N 042W-041W 100yr	3	8	5	3	3	1	0	1	0	5	11	16	14.7
50yr	3	6	4	2	3	0	0	1	0	4	9	13	14.8
016N-017N 041W-040W 100yr	3	7	5	2	3	2	1	0	0	6	10	16	12.7
50yr	3	6	5	1	3	1	1	0	0	5	9	14	12.6
016N-017N 040W-039W 100yr	2	7	3	4	3	2	1	0	0	6	9	15	12.1
50yr	2	6	3	3	3	1	1	0	0	5	8	13	11.9
016N-017N 039W-038W 100yr	1	4	2	2	1	1	1	0	0	3	5	8	10.9
50yr	1	3	1	2	1	1	1	0	0	3	4	7	10.9
016N-017N 038W-037W 100yr	2	4	2	2	2	0	0	0	0	2	6	8	12.1
50yr	2	4	2	2	2	0	0	0	0	2	6	8	12.1
016N-017N 037W-036W 100yr	1	4	2	2	1	1	0	0	0	2	5	7	10.7
50yr	1	4	2	2	1	1	0	0	0	2	5	7	10.7
016N-017N 036W-035W 100yr	1	6	4	2	0	2	0	0	0	2	7	9	11.6
50yr	1	5	3	2	0	2	0	0	0	2	6	8	11.1
016N-017N 035W-034W 100yr	1	4	2	2	0	2	0	0	0	2	5	7	12.1
50yr	1	3	2	1	0	2	0	0	0	2	4	6	11.9
016N-017N 034W-033W 100yr	4	5	4	1	0	1	0	0	0	1	9	10	12.1
50yr	4	3	2	1	0	1	0	0	0	1	7	8	12.0
016N-017N 033W-032W 100yr	3	3	2	1	1	0	0	0	0	1	6	7	12.2
50yr	3	2	1	1	1	0	0	0	0	1	5	6	12.3
016N-017N 032W-031W 100yr	1	3	2	1	1	0	0	0	0	1	4	5	11.7
50yr	1	2	1	1	1	0	0	0	0	1	3	4	12.0
016N-017N 031W-030W 100yr	1	3	2	1	1	0	0	0	0	1	4	5	12.2
50yr	1	2	1	1	1	0	0	0	0	1	3	4	12.6
016N-017N 030W-029W 100yr	1	3	3	0	1	0	0	0	0	1	4	5	12.3
50yr	1	1	1	0	1	0	0	0	0	1	2	3	15.6
016N-017N 029W-028W 100yr	2	3	3	0	0	0	0	0	0	0	5	5	12.5
50yr	2	1	1	0	0	0	0	0	0	0	3	3	15.9
016N-017N 028W-027W 100yr	2	2	2	0	0	0	0	0	0	0	4	4	14.4
50yr	2	1	1	0	0	0	0	0	0	0	3	3	15.7
016N-017N 027W-026W 100yr	3	2	1	1	0	0	0	0	0	0	5	5	13.2
50yr	3	1	0	1	0	0	0	0	0	0	4	4	14.0
016N-017N 026W-025W 100yr	2	1	0	1	0	0	0	0	0	0	3	3	14.1
50yr	2	1	0	1	0	0	0	0	0	0	3	3	14.1
016N-017N 025W-024W 100yr	2	0	0	0	0	0	0	0	0	0	2	2	15.5
50yr	2	0	0	0	0	0	0	0	0	0	2	2	15.5
016N-017N 024W-023W 100yr	3	0	0	0	0	0	0	0	0	0	3	3	14.3
50yr	3	0	0	0	0	0	0	0	0	0	3	3	14.3
016N-017N 023W-022W 100yr	4	0	0	0	0	0	0	0	0	0	4	4	11.2

Grid Cell	TD	TS	G	S	S1	S2	S3	S4	S5	H	<H	All	Spd
50yr	4	0	0	0	0	0	0	0	0	0	4	4	11.2
016N-017N 022W-021W 100yr	4	1	1	0	0	0	0	0	0	0	5	5	10.3
50yr	4	0	0	0	0	0	0	0	0	0	4	4	11.4
016N-017N 021W-020W 100yr	4	2	2	0	0	0	0	0	0	0	6	6	10.1
50yr	4	1	1	0	0	0	0	0	0	0	5	5	10.9
016N-017N 020W-019W 100yr	2	2	2	0	0	0	0	0	0	0	4	4	10.2
50yr	2	1	1	0	0	0	0	0	0	0	3	3	11.6
016N-017N 019W-018W 100yr	2	0	0	0	0	0	0	0	0	0	2	2	7.4
50yr	2	0	0	0	0	0	0	0	0	0	2	2	7.4

017°N to 018°N

Grid Cell	TD	TS	G	S	S1	S2	S3	S4	S5	H	<H	All	Spd
017N-018N 105W-104W 100yr	0	1	1	0	0	0	0	0	0	0	1	1	17.2
50yr	0	1	1	0	0	0	0	0	0	0	1	1	17.2
017N-018N 104W-103W 100yr	0	1	1	0	0	0	0	0	0	0	1	1	17.2
50yr	0	1	1	0	0	0	0	0	0	0	1	1	17.2
017N-018N 103W-102W 100yr	0	1	1	0	0	0	0	0	0	0	1	1	15.8
50yr	0	1	1	0	0	0	0	0	0	0	1	1	15.8
017N-018N 102W-101W 100yr	0	1	1	0	0	0	0	0	0	0	1	1	13.0
50yr	0	1	1	0	0	0	0	0	0	0	1	1	13.0
017N-018N 101W-100W 100yr	0	1	1	0	0	0	0	0	0	0	1	1	13.0
50yr	0	1	1	0	0	0	0	0	0	0	1	1	13.0
017N-018N 100W-099W 100yr	1	0	0	0	0	0	0	0	0	0	1	1	12.4
50yr	1	0	0	0	0	0	0	0	0	0	1	1	12.4
017N-018N 099W-098W 100yr	1	0	0	0	0	0	0	0	0	0	1	1	12.9
50yr	1	0	0	0	0	0	0	0	0	0	1	1	12.9
017N-018N 098W-097W 100yr	2	0	0	0	0	0	0	0	0	0	2	2	20.8
50yr	1	0	0	0	0	0	0	0	0	0	1	1	19.2
017N-018N 097W-096W 100yr	2	1	1	0	0	0	0	0	0	0	3	3	14.6
50yr	1	1	1	0	0	0	0	0	0	0	2	2	10.8
017N-018N 096W-095W 100yr	1	2	1	1	0	0	0	0	0	0	3	3	10.0
50yr	1	1	0	1	0	0	0	0	0	0	2	2	10.1
017N-018N 095W-094W 100yr	1	0	0	0	1	0	0	0	0	1	1	2	15.6
50yr	1	0	0	0	0	0	0	0	0	0	1	1	17.4
017N-018N 094W-093W 100yr	3	2	2	0	0	0	0	0	0	0	5	5	10.7
50yr	3	1	1	0	0	0	0	0	0	0	4	4	10.4
017N-018N 093W-092W 100yr	1	4	2	2	0	0	0	0	0	0	5	5	8.5
50yr	1	1	0	1	0	0	0	0	0	0	2	2	9.4
017N-018N 092W-091W 100yr	2	4	2	2	0	0	0	0	0	0	6	6	12.4
50yr	2	1	1	0	0	0	0	0	0	0	3	3	9.8
017N-018N 091W-090W 100yr	1	6	4	2	0	0	0	0	0	0	7	7	12.3
50yr	1	0	0	0	0	0	0	0	0	0	1	1	10.5
017N-018N 090W-089W 100yr	0	5	5	0	1	1	1	0	0	3	5	8	11.4
50yr	0	0	0	0	0	1	0	0	0	1	0	1	12.2
017N-018N 089W-088W 100yr	3	14	11	3	2	1	2	0	1	6	17	23	9.7
50yr	3	3	1	2	1	0	1	0	1	3	6	9	8.8
017N-018N 088W-087W 100yr	6	15	13	2	3	1	1	1	1	7	21	28	10.3

Grid Cell	TD	TS	G	S	S1	S2	S3	S4	S5	H	<H	All	Spd
50yr	6	2	0	2	1	0	0	1	1	3	8	11	10.4
017N-018N 087W-086W 100yr	5	14	12	2	0	2	1	0	2	5	19	24	10.8
50yr	4	3	1	2	0	0	1	0	2	3	7	10	8.7
017N-018N 086W-085W 100yr	6	19	14	5	3	1	0	1	3	8	25	33	10.2
50yr	5	4	2	2	0	0	0	1	3	4	9	13	8.4
017N-018N 085W-084W 100yr	7	23	17	6	4	1	0	1	2	8	30	38	10.9
50yr	7	7	5	2	1	0	0	1	2	4	14	18	10.1
017N-018N 084W-083W 100yr	5	23	17	6	3	1	1	0	2	7	28	35	10.2
50yr	5	7	6	1	1	0	1	0	2	4	12	16	10.7
017N-018N 083W-082W 100yr	3	23	15	8	3	6	2	0	1	12	26	38	10.4
50yr	3	6	3	3	0	2	2	0	1	5	9	14	10.6
017N-018N 082W-081W 100yr	3	16	10	6	3	7	3	0	1	14	19	33	10.5
50yr	3	6	3	3	1	1	2	0	1	5	9	14	11.4
017N-018N 081W-080W 100yr	1	16	10	6	11	3	3	0	0	17	17	34	10.8
50yr	1	4	4	0	2	0	1	0	0	3	5	8	13.2
017N-018N 080W-079W 100yr	1	13	9	4	6	3	0	1	0	10	14	24	11.0
50yr	1	3	3	0	1	0	0	0	0	1	4	5	13.5
017N-018N 079W-078W 100yr	2	11	9	2	3	1	0	1	0	5	13	18	11.2
50yr	2	2	1	1	1	0	0	0	0	1	4	5	11.3
017N-018N 078W-077W 100yr	2	9	9	0	2	4	1	0	0	7	11	18	12.7
50yr	2	2	2	0	1	1	1	0	0	3	4	7	14.1
017N-018N 077W-076W 100yr	3	6	6	0	2	3	2	0	0	7	9	16	13.0
50yr	3	1	1	0	1	1	1	0	0	3	4	7	14.8
017N-018N 076W-075W 100yr	3	4	3	1	4	5	2	0	0	11	7	18	13.1
50yr	3	0	0	0	2	1	1	0	0	4	3	7	14.6
017N-018N 075W-074W 100yr	3	7	5	2	1	5	3	0	1	10	10	20	14.6
50yr	3	1	0	1	1	1	2	0	1	5	4	9	14.3
017N-018N 074W-073W 100yr	2	5	4	1	2	4	2	2	1	11	7	18	15.4
50yr	2	1	1	0	1	1	1	2	1	6	3	9	15.3
017N-018N 073W-072W 100yr	1	7	5	2	3	4	2	3	1	13	8	21	14.4
50yr	1	1	1	0	1	1	2	3	1	8	2	10	14.8
017N-018N 072W-071W 100yr	1	9	7	2	5	3	1	2	0	11	10	21	15.2
50yr	1	3	2	1	1	1	1	2	0	5	4	9	16.1
017N-018N 071W-070W 100yr	1	10	8	2	3	2	2	1	0	8	11	19	15.2
50yr	1	4	3	1	0	0	2	1	0	3	5	8	16.6
017N-018N 070W-069W 100yr	2	10	8	2	2	2	1	2	1	8	12	20	13.6
50yr	2	5	4	1	0	0	1	2	1	4	7	11	15.0
017N-018N 069W-068W 100yr	2	13	10	3	3	1	0	3	1	8	15	23	12.6
50yr	2	7	6	1	1	0	0	2	1	4	9	13	13.9
017N-018N 068W-067W 100yr	2	14	11	3	4	2	0	3	0	9	16	25	12.7
50yr	2	7	6	1	1	1	0	2	0	4	9	13	14.2
017N-018N 067W-066W 100yr	1	10	8	2	5	1	1	0	1	8	11	19	12.4
50yr	1	2	2	0	2	0	0	0	0	2	3	5	15.2
017N-018N 066W-065W 100yr	1	12	8	4	3	3	0	2	1	9	13	22	14.1
50yr	1	3	2	1	2	1	0	2	0	5	4	9	13.6
017N-018N 065W-064W 100yr	4	11	8	3	2	4	0	3	0	9	15	24	12.4
50yr	4	2	1	1	2	2	0	2	0	6	6	12	12.1
017N-018N 064W-063W 100yr	3	13	9	4	7	0	1	3	0	11	16	27	12.6

Grid Cell	TD	TS	G	S	S1	S2	S3	S4	S5	H	<H	All	Spd
50yr	3	3	2	1	5	0	1	2	0	8	6	14	11.7
017N-018N 063W-062W 100yr	6	14	9	5	6	4	3	2	0	15	20	35	12.2
50yr	6	4	2	2	3	2	1	2	0	8	10	18	12.4
017N-018N 062W-061W 100yr	6	12	7	5	5	5	2	2	0	14	18	32	11.5
50yr	6	5	2	3	3	2	1	2	0	8	11	19	11.6
017N-018N 061W-060W 100yr	4	11	7	4	4	3	1	1	1	10	15	25	12.1
50yr	4	4	2	2	2	1	0	1	1	5	8	13	11.3
017N-018N 060W-059W 100yr	5	12	8	4	4	5	0	1	0	10	17	27	12.6
50yr	5	4	2	2	3	1	0	1	0	5	9	14	11.8
017N-018N 059W-058W 100yr	5	13	9	4	6	3	1	1	0	11	18	29	13.8
50yr	5	7	6	1	4	2	0	1	0	7	12	19	13.8
017N-018N 058W-057W 100yr	6	15	7	8	3	1	1	2	0	7	21	28	14.0
50yr	6	7	5	2	3	0	0	2	0	5	13	18	14.7
017N-018N 057W-056W 100yr	6	18	12	6	6	0	1	2	0	9	24	33	14.1
50yr	6	11	7	4	4	0	0	2	0	6	17	23	14.1
017N-018N 056W-055W 100yr	6	15	10	5	5	2	0	1	0	8	21	29	13.7
50yr	6	9	5	4	3	1	0	1	0	5	15	20	14.1
017N-018N 055W-054W 100yr	6	14	8	6	6	1	0	1	0	8	20	28	13.5
50yr	6	10	6	4	2	1	0	1	0	4	16	20	13.5
017N-018N 054W-053W 100yr	3	12	6	6	5	0	0	3	0	8	15	23	14.2
50yr	3	10	5	5	2	0	0	3	0	5	13	18	14.6
017N-018N 053W-052W 100yr	3	8	5	3	5	1	1	2	0	9	11	20	13.9
50yr	3	7	4	3	2	1	1	2	0	6	10	16	14.5
017N-018N 052W-051W 100yr	2	6	2	4	6	1	1	3	0	11	8	19	13.1
50yr	2	6	2	4	4	1	1	3	0	9	8	17	13.5
017N-018N 051W-050W 100yr	4	6	3	3	5	1	0	3	0	9	10	19	13.2
50yr	4	6	3	3	3	1	0	3	0	7	10	17	13.5
017N-018N 050W-049W 100yr	2	13	6	7	2	1	0	3	0	6	15	21	13.6
50yr	2	10	6	4	0	1	0	3	0	4	12	16	13.8
017N-018N 049W-048W 100yr	2	15	9	6	4	2	0	3	0	9	17	26	14.1
50yr	2	9	7	2	2	1	0	3	0	6	11	17	14.2
017N-018N 048W-047W 100yr	4	10	5	5	3	2	1	2	0	8	14	22	14.5
50yr	4	4	3	1	1	1	1	2	0	5	8	13	14.7
017N-018N 047W-046W 100yr	4	10	6	4	3	3	1	2	0	9	14	23	13.6
50yr	4	7	5	2	1	1	1	2	0	5	11	16	13.9
017N-018N 046W-045W 100yr	4	9	6	3	5	3	0	1	0	9	13	22	13.3
50yr	4	6	5	1	2	2	0	1	0	5	10	15	13.3
017N-018N 045W-044W 100yr	4	8	6	2	2	2	0	1	0	5	12	17	12.3
50yr	4	5	4	1	1	1	0	1	0	3	9	12	12.2
017N-018N 044W-043W 100yr	4	7	6	1	1	0	1	1	0	3	11	14	13.4
50yr	4	5	4	1	0	0	1	1	0	2	9	11	12.8
017N-018N 043W-042W 100yr	2	6	5	1	3	2	0	1	0	6	8	14	13.8
50yr	2	5	4	1	2	2	0	1	0	5	7	12	11.9
017N-018N 042W-041W 100yr	0	6	4	2	3	2	0	1	0	6	6	12	14.3
50yr	0	4	3	1	2	2	0	1	0	5	4	9	11.9
017N-018N 041W-040W 100yr	1	6	3	3	2	1	0	0	0	3	7	10	13.8
50yr	1	5	3	2	1	1	0	0	0	2	6	8	11.6
017N-018N 040W-039W 100yr	2	5	1	4	2	0	0	0	0	2	7	9	15.0

Grid Cell	TD	TS	G	S	S1	S2	S3	S4	S5	H	<H	All	Spd
50yr	2	4	1	3	1	0	0	0	0	1	6	7	12.8
017N-018N 039W-038W 100yr	2	4	2	2	1	0	0	0	0	1	6	7	12.3
50yr	2	3	2	1	1	0	0	0	0	1	5	6	12.1
017N-018N 038W-037W 100yr	2	5	3	2	2	1	0	0	0	3	7	10	12.1
50yr	2	4	3	1	2	1	0	0	0	3	6	9	12.0
017N-018N 037W-036W 100yr	1	6	4	2	0	2	0	0	0	2	7	9	12.6
50yr	1	4	3	1	0	2	0	0	0	2	5	7	11.9
017N-018N 036W-035W 100yr	2	5	3	2	0	1	0	0	0	1	7	8	13.4
50yr	2	3	2	1	0	1	0	0	0	1	5	6	12.9
017N-018N 035W-034W 100yr	3	3	1	2	1	0	0	0	0	1	6	7	13.0
50yr	3	2	1	1	1	0	0	0	0	1	5	6	12.9
017N-018N 034W-033W 100yr	4	1	1	0	1	0	0	0	0	1	5	6	11.7
50yr	4	0	0	0	1	0	0	0	0	1	4	5	11.6
017N-018N 033W-032W 100yr	2	1	1	0	1	0	0	0	0	1	3	4	10.2
50yr	2	0	0	0	1	0	0	0	0	1	2	3	10.5
017N-018N 032W-031W 100yr	2	0	0	0	1	0	0	0	0	1	2	3	10.0
50yr	2	0	0	0	1	0	0	0	0	1	2	3	10.0
017N-018N 031W-030W 100yr	2	1	1	0	0	0	0	0	0	0	3	3	16.0
50yr	2	1	1	0	0	0	0	0	0	0	3	3	16.0
017N-018N 030W-029W 100yr	2	2	2	0	0	0	0	0	0	0	4	4	13.0
50yr	2	1	1	0	0	0	0	0	0	0	3	3	15.9
017N-018N 029W-028W 100yr	2	1	1	0	0	0	0	0	0	0	3	3	11.8
50yr	2	0	0	0	0	0	0	0	0	0	2	2	15.7
017N-018N 028W-027W 100yr	1	1	1	0	0	0	0	0	0	0	2	2	13.7
50yr	1	1	1	0	0	0	0	0	0	0	2	2	13.7
017N-018N 027W-026W 100yr	1	2	1	1	0	0	0	0	0	0	3	3	13.1
50yr	1	2	1	1	0	0	0	0	0	0	3	3	13.1
017N-018N 026W-025W 100yr	2	0	0	0	0	0	0	0	0	0	2	2	12.3
50yr	2	0	0	0	0	0	0	0	0	0	2	2	12.3
017N-018N 025W-024W 100yr	3	0	0	0	0	0	0	0	0	0	3	3	13.7
50yr	3	0	0	0	0	0	0	0	0	0	3	3	13.7
017N-018N 024W-023W 100yr	4	1	1	0	0	0	0	0	0	0	5	5	12.2
50yr	4	1	1	0	0	0	0	0	0	0	5	5	12.2
017N-018N 023W-022W 100yr	1	1	1	0	0	0	0	0	0	0	2	2	8.9
50yr	1	1	1	0	0	0	0	0	0	0	2	2	8.9
017N-018N 021W-020W 100yr	0	1	0	1	0	0	0	0	0	0	1	1	13.4
50yr	0	1	0	1	0	0	0	0	0	0	1	1	13.4
017N-018N 019W-018W 100yr	0	1	1	0	0	0	0	0	0	0	1	1	5.1
50yr	0	1	1	0	0	0	0	0	0	0	1	1	5.1

018°N to 019°N

018N-019N 098W-097W 100yr	1	0	0	0	1	0	0	0	0	1	1	2	17.1
50yr	0	0	0	0	0	0	0	0	0	0	0	0	0.0
018N-019N 097W-096W 100yr	1	1	0	1	1	0	0	0	0	1	2	3	14.4
50yr	0	0	0	0	0	0	0	0	0	0	0	0	0.0
018N-019N 096W-095W 100yr	2	3	2	1	1	1	0	0	0	2	5	7	12.5

Grid Cell	TD	TS	G	S	S1	S2	S3	S4	S5	H	<H	All	Spd
50yr	0	1	0	1	0	0	0	0	0	0	1	1	5.2
018N-019N 095W-094W 100yr	0	5	4	1	1	0	0	0	0	1	5	6	9.9
50yr	0	1	0	1	0	0	0	0	0	0	1	1	5.5
018N-019N 094W-093W 100yr	3	7	7	0	1	0	0	0	0	1	10	11	8.9
50yr	3	0	0	0	0	0	0	0	0	0	3	3	8.5
018N-019N 093W-092W 100yr	1	6	5	1	1	0	0	0	0	1	7	8	7.9
50yr	1	0	0	0	1	0	0	0	0	1	1	2	8.8
018N-019N 092W-091W 100yr	1	7	6	1	0	0	0	0	0	0	8	8	9.6
50yr	1	0	0	0	0	0	0	0	0	0	1	1	10.0
018N-019N 091W-090W 100yr	3	10	6	4	0	0	0	1	0	1	13	14	10.4
50yr	3	1	0	1	0	0	0	1	0	1	4	5	12.5
018N-019N 090W-089W 100yr	1	8	5	3	1	1	1	1	0	4	9	13	10.5
50yr	1	3	1	2	0	1	0	1	0	2	4	6	11.0
018N-019N 089W-088W 100yr	4	11	7	4	3	1	0	1	1	6	15	21	9.6
50yr	4	4	1	3	0	0	0	1	1	2	8	10	9.8
018N-019N 088W-087W 100yr	5	10	9	1	3	1	0	1	1	6	15	21	11.7
50yr	5	1	1	0	0	0	0	1	1	2	6	8	13.3
018N-019N 087W-086W 100yr	4	13	10	3	2	1	0	1	1	5	17	22	10.1
50yr	4	3	2	1	0	0	0	1	1	2	7	9	9.5
018N-019N 086W-085W 100yr	9	14	9	5	5	1	0	1	1	8	23	31	9.2
50yr	9	4	3	1	1	0	0	1	1	3	13	16	9.0
018N-019N 085W-084W 100yr	6	18	12	6	4	2	1	1	0	8	24	32	10.1
50yr	6	6	4	2	1	0	1	1	0	3	12	15	8.7
018N-019N 084W-083W 100yr	4	26	17	9	4	5	1	1	0	11	30	41	10.9
50yr	4	8	4	4	1	1	1	1	0	4	12	16	9.9
018N-019N 083W-082W 100yr	3	21	13	8	4	8	2	1	0	15	24	39	11.4
50yr	3	5	2	3	1	1	2	1	0	5	8	13	10.5
018N-019N 082W-081W 100yr	3	10	6	4	9	3	1	1	0	14	13	27	11.0
50yr	3	3	2	1	2	1	0	1	0	4	6	10	10.3
018N-019N 081W-080W 100yr	2	12	7	5	8	1	0	3	0	12	14	26	10.6
50yr	2	2	2	0	1	1	0	1	0	3	4	7	10.7
018N-019N 080W-079W 100yr	1	12	8	4	3	1	2	2	0	8	13	21	10.7
50yr	1	1	1	0	1	0	0	1	0	2	2	4	10.8
018N-019N 079W-078W 100yr	2	11	7	4	2	2	5	1	0	10	13	23	11.7
50yr	2	0	0	0	1	0	1	0	0	2	2	4	13.9
018N-019N 078W-077W 100yr	3	7	5	2	1	5	3	2	0	11	10	21	12.4
50yr	3	0	0	0	0	1	1	1	0	3	3	6	15.2
018N-019N 077W-076W 100yr	1	7	6	1	1	3	1	1	0	6	8	14	14.3
50yr	1	1	1	0	0	0	0	1	0	1	2	3	20.2
018N-019N 076W-075W 100yr	1	4	3	1	3	3	0	1	1	8	5	13	14.3
50yr	1	1	1	0	0	0	0	1	1	2	2	4	17.6
018N-019N 075W-074W 100yr	1	4	3	1	3	2	1	2	1	9	5	14	13.7
50yr	1	1	1	0	0	1	1	2	1	5	2	7	13.6
018N-019N 074W-073W 100yr	1	6	4	2	2	3	1	2	0	8	7	15	13.2
50yr	1	1	1	0	0	2	1	2	0	5	2	7	12.4
018N-019N 073W-072W 100yr	1	8	6	2	3	0	0	1	0	4	9	13	13.5
50yr	1	1	1	0	1	0	0	1	0	2	2	4	12.4
018N-019N 072W-071W 100yr	1	7	5	2	3	0	2	2	0	7	8	15	14.0

Grid Cell	TD	TS	G	S	S1	S2	S3	S4	S5	H	<H	All	Spd
50yr	1	2	1	1	1	0	2	1	0	4	3	7	12.6
018N-019N 071W-070W 100yr	2	13	10	3	2	1	1	1	1	6	15	21	13.6
50yr	2	3	3	0	0	1	1	0	1	3	5	8	12.4
018N-019N 070W-069W 100yr	4	11	8	3	4	1	1	1	1	8	15	23	13.4
50yr	3	2	2	0	1	0	1	0	1	3	5	8	11.0
018N-019N 069W-068W 100yr	3	8	3	5	6	1	1	1	1	10	11	21	12.8
50yr	2	2	1	1	2	0	1	0	0	3	4	7	10.2
018N-019N 068W-067W 100yr	1	10	8	2	6	2	0	0	1	9	11	20	13.6
50yr	1	2	2	0	2	1	0	0	0	3	3	6	12.7
018N-019N 067W-066W 100yr	3	10	8	2	5	2	1	0	1	9	13	22	14.4
50yr	3	2	1	1	3	1	1	0	0	5	5	10	13.4
018N-019N 066W-065W 100yr	2	17	11	6	4	5	0	1	1	11	19	30	13.9
50yr	2	6	3	3	3	2	0	1	0	6	8	14	12.3
018N-019N 065W-064W 100yr	3	17	10	7	5	5	1	1	0	12	20	32	12.7
50yr	3	7	4	3	3	1	0	1	0	5	10	15	12.1
018N-019N 064W-063W 100yr	4	15	8	7	6	3	2	3	0	14	19	33	12.3
50yr	4	6	4	2	4	0	0	3	0	7	10	17	12.0
018N-019N 063W-062W 100yr	5	15	11	4	3	5	2	2	0	12	20	32	11.9
50yr	5	6	4	2	1	2	0	2	0	5	11	16	10.9
018N-019N 062W-061W 100yr	6	13	7	6	4	3	1	0	0	8	19	27	12.5
50yr	6	4	2	2	4	1	0	0	0	5	10	15	11.4
018N-019N 061W-060W 100yr	6	16	10	6	5	3	1	0	0	9	22	31	13.2
50yr	6	5	3	2	5	0	0	0	0	5	11	16	12.8
018N-019N 060W-059W 100yr	6	13	8	5	6	3	1	0	0	10	19	29	13.2
50yr	6	5	4	1	6	0	0	0	0	6	11	17	13.3
018N-019N 059W-058W 100yr	4	14	10	4	4	3	1	2	0	10	18	28	12.9
50yr	4	9	7	2	3	2	0	2	0	7	13	20	12.7
018N-019N 058W-057W 100yr	5	13	9	4	6	2	0	2	0	10	18	28	12.2
50yr	5	7	5	2	3	1	0	2	0	6	12	18	12.3
018N-019N 057W-056W 100yr	4	14	12	2	5	1	1	0	0	7	18	25	12.1
50yr	4	11	9	2	2	0	1	0	0	3	15	18	11.6
018N-019N 056W-055W 100yr	4	7	5	2	3	3	0	2	0	8	11	19	13.3
50yr	4	5	3	2	2	1	0	2	0	5	9	14	13.2
018N-019N 055W-054W 100yr	4	9	6	3	2	2	0	3	0	7	13	20	15.8
50yr	4	6	3	3	1	1	0	3	0	5	10	15	15.4
018N-019N 054W-053W 100yr	3	6	5	1	3	3	0	3	0	9	9	18	15.5
50yr	3	3	2	1	2	2	0	3	0	7	6	13	15.0
018N-019N 053W-052W 100yr	4	3	2	1	6	4	0	1	0	11	7	18	14.4
50yr	4	1	0	1	3	3	0	1	0	7	5	12	14.8
018N-019N 052W-051W 100yr	3	6	3	3	5	2	0	1	0	8	9	17	14.6
50yr	3	4	1	3	2	0	0	1	0	3	7	10	15.3
018N-019N 051W-050W 100yr	2	7	3	4	3	4	0	0	0	7	9	16	14.7
50yr	2	4	1	3	0	3	0	0	0	3	6	9	15.1
018N-019N 050W-049W 100yr	1	8	3	5	4	4	0	2	0	10	9	19	14.5
50yr	1	3	1	2	1	3	0	2	0	6	4	10	15.0
018N-019N 049W-048W 100yr	1	9	7	2	4	2	0	2	0	8	10	18	13.8
50yr	1	6	5	1	2	0	0	2	0	4	7	11	14.2
018N-019N 048W-047W 100yr	1	6	5	1	2	1	0	1	0	4	7	11	13.2

Grid Cell		TD	TS	G	S	S1	S2	S3	S4	S5	H	<H	All	Spd
	50yr	1	5	4	1	0	0	0	1	0	1	6	7	14.8
018N-019N 047W-046W	100yr	3	5	4	1	2	2	0	1	0	5	8	13	13.3
	50yr	3	4	4	0	1	1	0	1	0	3	7	10	14.6
018N-019N 046W-045W	100yr	1	3	2	1	2	2	0	1	0	5	4	9	14.5
	50yr	1	2	1	1	1	2	0	1	0	4	3	7	15.3
018N-019N 045W-044W	100yr	0	3	2	1	3	1	0	1	0	5	3	8	13.8
	50yr	0	2	1	1	2	1	0	1	0	4	2	6	14.7
018N-019N 044W-043W	100yr	0	2	1	1	2	3	0	0	0	5	2	7	13.0
	50yr	0	2	1	1	1	3	0	0	0	4	2	6	12.8
018N-019N 043W-042W	100yr	0	2	1	1	2	3	0	0	0	5	2	7	12.6
	50yr	0	2	1	1	1	3	0	0	0	4	2	6	12.2
018N-019N 042W-041W	100yr	1	2	1	1	2	1	0	0	0	3	3	6	11.7
	50yr	1	2	1	1	1	1	0	0	0	2	3	5	11.3
018N-019N 041W-040W	100yr	1	6	3	3	1	1	0	0	0	2	7	9	10.6
	50yr	1	6	3	3	1	1	0	0	0	2	7	9	10.6
018N-019N 040W-039W	100yr	1	3	2	1	1	0	0	0	0	1	4	5	12.1
	50yr	1	3	2	1	1	0	0	0	0	1	4	5	12.1
018N-019N 039W-038W	100yr	0	5	4	1	1	1	0	0	0	2	5	7	12.0
	50yr	0	5	4	1	1	1	0	0	0	2	5	7	12.0
018N-019N 038W-037W	100yr	0	4	4	0	0	2	0	0	0	2	4	6	13.3
	50yr	0	3	3	0	0	2	0	0	0	2	3	5	12.6
018N-019N 037W-036W	100yr	1	4	4	0	1	0	0	0	0	1	5	6	13.4
	50yr	1	3	3	0	1	0	0	0	0	1	4	5	12.8
018N-019N 036W-035W	100yr	2	1	1	0	1	0	0	0	0	1	3	4	12.3
	50yr	2	1	1	0	1	0	0	0	0	1	3	4	12.3
018N-019N 035W-034W	100yr	4	1	1	0	1	0	0	0	0	1	5	6	11.5
	50yr	4	1	1	0	1	0	0	0	0	1	5	6	11.5
018N-019N 034W-033W	100yr	2	1	1	0	0	0	0	0	0	0	3	3	11.1
	50yr	2	1	1	0	0	0	0	0	0	0	3	3	11.1
018N-019N 033W-032W	100yr	1	2	2	0	0	0	0	0	0	0	3	3	13.9
	50yr	1	1	1	0	0	0	0	0	0	0	2	2	15.2
018N-019N 032W-031W	100yr	1	2	2	0	0	0	0	0	0	0	3	3	17.5
	50yr	1	2	2	0	0	0	0	0	0	0	3	3	17.5
018N-019N 031W-030W	100yr	1	3	3	0	0	0	0	0	0	0	4	4	13.1
	50yr	1	2	2	0	0	0	0	0	0	0	3	3	16.0
018N-019N 030W-029W	100yr	0	2	2	0	0	0	0	0	0	0	2	2	9.6
	50yr	0	1	1	0	0	0	0	0	0	0	1	1	15.1
018N-019N 029W-028W	100yr	0	1	1	0	0	0	0	0	0	0	1	1	14.2
	50yr	0	1	1	0	0	0	0	0	0	0	1	1	14.2
018N-019N 028W-027W	100yr	1	2	1	1	0	0	0	0	0	0	3	3	14.8
	50yr	1	2	1	1	0	0	0	0	0	0	3	3	14.8
018N-019N 027W-026W	100yr	2	1	0	1	0	0	0	0	0	0	3	3	14.0
	50yr	2	1	0	1	0	0	0	0	0	0	3	3	14.0
018N-019N 026W-025W	100yr	2	0	0	0	0	0	0	0	0	0	2	2	14.1
	50yr	2	0	0	0	0	0	0	0	0	0	2	2	14.1
018N-019N 025W-024W	100yr	1	1	0	1	0	0	0	0	0	0	2	2	11.2
	50yr	1	1	0	1	0	0	0	0	0	0	2	2	11.2
018N-019N 024W-023W	100yr	1	1	1	0	0	0	0	0	0	0	2	2	9.4

Grid Cell	TD	TS	G	S	S1	S2	S3	S4	S5	H	<H	All	Spd
50yr	1	1	1	0	0	0	0	0	0	0	2	2	9.4
018N-019N 022W-021W 100yr	0	1	0	1	0	0	0	0	0	0	1	1	13.2
50yr	0	1	0	1	0	0	0	0	0	0	1	1	13.2
018N-019N 021W-020W 100yr	0	1	0	1	0	0	0	0	0	0	1	1	13.2
50yr	0	1	0	1	0	0	0	0	0	0	1	1	13.2
018N-019N 019W-018W 100yr	0	1	1	0	0	0	0	0	0	0	1	1	5.6
50yr	0	1	1	0	0	0	0	0	0	0	1	1	5.6

019°N to 020°N

019N-020N 106W-105W 100yr	1	0	0	0	0	0	0	0	0	0	1	1	7.8
50yr	1	0	0	0	0	0	0	0	0	0	1	1	7.8
019N-020N 105W-104W 100yr	1	0	0	0	0	0	0	0	0	0	1	1	8.1
50yr	1	0	0	0	0	0	0	0	0	0	1	1	8.1
019N-020N 104W-103W 100yr	1	0	0	0	0	0	0	0	0	0	1	1	8.6
50yr	1	0	0	0	0	0	0	0	0	0	1	1	8.6
019N-020N 103W-102W 100yr	1	0	0	0	0	0	0	0	0	0	1	1	8.6
50yr	1	0	0	0	0	0	0	0	0	0	1	1	8.6
019N-020N 102W-101W 100yr	1	0	0	0	0	0	0	0	0	0	1	1	8.6
50yr	1	0	0	0	0	0	0	0	0	0	1	1	8.6
019N-020N 101W-100W 100yr	1	0	0	0	0	0	0	0	0	0	1	1	8.7
50yr	1	0	0	0	0	0	0	0	0	0	1	1	8.7
019N-020N 100W-099W 100yr	0	1	1	0	0	0	0	0	0	0	1	1	8.9
50yr	0	1	1	0	0	0	0	0	0	0	1	1	8.9
019N-020N 098W-097W 100yr	1	4	4	0	1	1	0	0	0	2	5	7	10.3
50yr	0	2	2	0	0	1	0	0	0	1	2	3	7.9
019N-020N 097W-096W 100yr	3	5	4	1	1	1	0	0	0	2	8	10	10.5
50yr	2	2	2	0	0	1	0	0	0	1	4	5	9.6
019N-020N 096W-095W 100yr	3	4	2	2	2	2	0	0	0	4	7	11	10.0
50yr	2	1	0	1	0	1	0	0	0	1	3	4	9.4
019N-020N 095W-094W 100yr	1	10	5	5	1	1	0	0	0	2	11	13	8.7
50yr	1	3	1	2	0	1	0	0	0	1	4	5	7.0
019N-020N 094W-093W 100yr	3	15	10	5	2	1	0	0	0	3	18	21	10.0
50yr	3	3	1	2	0	1	0	0	0	1	6	7	8.7
019N-020N 093W-092W 100yr	3	17	13	4	6	1	0	0	0	7	20	27	9.1
50yr	3	5	4	1	2	1	0	0	0	3	8	11	9.1
019N-020N 092W-091W 100yr	3	14	11	3	5	1	0	0	0	6	17	23	9.1
50yr	3	3	2	1	2	1	0	0	0	3	6	9	9.5
019N-020N 091W-090W 100yr	3	10	6	4	2	0	0	1	0	3	13	16	10.2
50yr	3	5	3	2	1	0	0	1	0	2	8	10	9.8
019N-020N 090W-089W 100yr	2	10	9	1	0	3	0	0	0	3	12	15	9.0
50yr	2	3	3	0	0	2	0	0	0	2	5	7	7.5
019N-020N 089W-088W 100yr	4	10	6	4	2	2	1	0	0	5	14	19	9.8
50yr	4	1	0	1	1	1	1	0	0	3	5	8	8.4
019N-020N 088W-087W 100yr	5	8	5	3	2	3	1	0	0	6	13	19	10.5
50yr	5	1	0	1	1	1	1	0	0	3	6	9	10.1
019N-020N 087W-086W 100yr	5	14	9	5	1	3	3	0	0	7	19	26	9.1

Grid Cell	TD	TS	G	S	S1	S2	S3	S4	S5	H	<H	All	Spd
50yr	5	3	1	2	0	0	3	0	0	3	8	11	7.6
019N-020N 086W-085W 100yr	8	14	9	5	6	5	3	0	1	15	22	37	8.8
50yr	8	5	4	1	1	1	3	0	1	6	13	19	8.2
019N-020N 085W-084W 100yr	5	19	11	8	7	5	3	0	1	16	24	40	10.3
50yr	5	6	4	2	1	0	3	0	1	5	11	16	9.1
019N-020N 084W-083W 100yr	3	25	12	13	6	6	2	0	1	15	28	43	10.9
50yr	3	9	2	7	1	3	0	0	1	5	12	17	9.7
019N-020N 083W-082W 100yr	3	16	12	4	9	5	4	0	1	19	19	38	10.8
50yr	3	4	3	1	0	1	1	0	1	3	7	10	9.6
019N-020N 082W-081W 100yr	4	12	8	4	10	2	3	1	0	16	16	32	10.2
50yr	4	4	2	2	2	0	1	1	0	4	8	12	9.2
019N-020N 081W-080W 100yr	2	12	10	2	7	2	2	2	0	13	14	27	10.1
50yr	2	3	3	0	2	0	0	1	0	3	5	8	10.8
019N-020N 080W-079W 100yr	2	11	11	0	4	2	4	2	0	12	13	25	10.8
50yr	2	4	4	0	1	0	0	1	0	2	6	8	11.2
019N-020N 079W-078W 100yr	3	7	4	3	1	3	1	2	0	7	10	17	11.2
50yr	3	2	1	1	0	0	0	1	0	1	5	6	14.5
019N-020N 078W-077W 100yr	2	9	6	3	1	2	1	2	0	6	11	17	10.8
50yr	2	2	2	0	0	0	1	1	0	2	4	6	14.5
019N-020N 077W-076W 100yr	1	10	8	2	2	1	1	1	0	5	11	16	13.0
50yr	1	3	3	0	0	0	1	1	0	2	4	6	15.3
019N-020N 076W-075W 100yr	1	8	7	1	2	1	1	1	0	5	9	14	13.1
50yr	1	4	4	0	0	1	1	1	0	3	5	8	15.1
019N-020N 075W-074W 100yr	3	8	7	1	4	2	0	1	0	7	11	18	13.3
50yr	3	4	4	0	2	2	0	1	0	5	7	12	14.0
019N-020N 074W-073W 100yr	2	8	5	3	3	1	1	0	0	5	10	15	12.0
50yr	2	3	1	2	2	1	1	0	0	4	5	9	12.8
019N-020N 073W-072W 100yr	3	9	5	4	2	0	0	1	0	3	12	15	12.8
50yr	2	3	1	2	2	0	0	1	0	3	5	8	12.7
019N-020N 072W-071W 100yr	3	15	10	5	0	0	1	1	0	2	18	20	14.8
50yr	1	5	2	3	0	0	1	1	0	2	6	8	13.7
019N-020N 071W-070W 100yr	3	12	8	4	2	1	0	1	0	4	15	19	14.2
50yr	2	5	3	2	2	0	0	0	0	2	7	9	12.8
019N-020N 070W-069W 100yr	4	7	5	2	6	1	0	1	0	8	11	19	14.3
50yr	3	3	2	1	4	0	0	0	0	4	6	10	12.7
019N-020N 069W-068W 100yr	5	9	6	3	9	1	0	0	1	11	14	25	13.6
50yr	5	3	1	2	4	1	0	0	0	5	8	13	12.8
019N-020N 068W-067W 100yr	2	13	9	4	7	0	1	0	1	9	15	24	14.3
50yr	2	4	2	2	4	0	0	0	0	4	6	10	14.4
019N-020N 067W-066W 100yr	2	13	7	6	5	1	4	0	0	10	15	25	13.1
50yr	2	5	2	3	2	0	3	0	0	5	7	12	11.3
019N-020N 066W-065W 100yr	0	18	11	7	3	2	4	1	0	10	18	28	12.6
50yr	0	7	4	3	2	1	0	1	0	4	7	11	11.7
019N-020N 065W-064W 100yr	0	16	11	5	3	4	3	4	0	14	16	30	11.9
50yr	0	6	4	2	2	0	0	3	0	5	6	11	12.7
019N-020N 064W-063W 100yr	1	12	11	1	4	3	2	2	0	11	13	24	11.9
50yr	1	5	5	0	3	0	0	2	0	5	6	11	12.0
019N-020N 063W-062W 100yr	6	10	8	2	7	3	1	1	0	12	16	28	12.9

Grid Cell	TD	TS	G	S	S1	S2	S3	S4	S5	H	<H	All	Spd
50yr	6	4	3	1	5	0	0	1	0	6	10	16	11.0
019N-020N 062W-061W 100yr	8	15	12	3	7	4	1	1	0	13	23	36	13.1
50yr	8	6	4	2	5	0	0	1	0	6	14	20	12.3
019N-020N 061W-060W 100yr	8	11	8	3	7	3	1	2	0	13	19	32	13.4
50yr	8	6	4	2	4	1	0	2	0	7	14	21	13.0
019N-020N 060W-059W 100yr	6	13	7	6	8	2	0	2	0	12	19	31	13.7
50yr	6	7	3	4	5	1	0	2	0	8	13	21	12.8
019N-020N 059W-058W 100yr	2	11	7	4	12	3	0	3	0	18	13	31	12.8
50yr	2	8	5	3	6	2	0	3	0	11	10	21	12.3
019N-020N 058W-057W 100yr	4	10	9	1	6	2	1	1	0	10	14	24	12.6
50yr	4	8	7	1	3	1	0	1	0	5	12	17	12.3
019N-020N 057W-056W 100yr	3	10	9	1	3	1	1	2	0	7	13	20	13.2
50yr	3	8	7	1	1	0	0	2	0	3	11	14	12.7
019N-020N 056W-055W 100yr	4	6	3	3	3	2	0	3	0	8	10	18	13.3
50yr	4	4	2	2	1	0	0	3	0	4	8	12	13.9
019N-020N 055W-054W 100yr	2	4	2	2	5	3	1	1	0	10	6	16	13.7
50yr	2	2	1	1	3	2	1	1	0	7	4	11	14.3
019N-020N 054W-053W 100yr	1	3	2	1	7	3	2	0	0	12	4	16	13.0
50yr	1	0	0	0	4	2	1	0	0	7	1	8	13.3
019N-020N 053W-052W 100yr	4	3	3	0	5	5	0	0	0	10	7	17	15.1
50yr	4	0	0	0	2	4	0	0	0	6	4	10	14.2
019N-020N 052W-051W 100yr	2	4	4	0	2	3	0	1	0	6	6	12	14.6
50yr	2	1	1	0	0	2	0	1	0	3	3	6	12.0
019N-020N 051W-050W 100yr	3	4	3	1	4	3	0	1	0	8	7	15	13.4
50yr	3	2	2	0	0	3	0	1	0	4	5	9	13.1
019N-020N 050W-049W 100yr	4	5	4	1	3	2	1	1	1	8	9	17	13.9
50yr	4	3	3	0	0	1	1	1	1	4	7	11	13.7
019N-020N 049W-048W 100yr	2	3	3	0	3	1	1	0	0	5	5	10	14.6
50yr	2	2	2	0	0	0	1	0	0	1	4	5	15.6
019N-020N 048W-047W 100yr	1	3	2	1	3	3	1	0	0	7	4	11	15.2
50yr	1	2	1	1	1	2	1	0	0	4	3	7	16.4
019N-020N 047W-046W 100yr	3	3	2	1	3	2	1	0	0	6	6	12	16.8
50yr	3	2	1	1	2	2	1	0	0	5	5	10	16.9
019N-020N 046W-045W 100yr	1	4	3	1	2	3	0	0	0	5	5	10	16.7
50yr	1	3	2	1	1	3	0	0	0	4	4	8	18.0
019N-020N 045W-044W 100yr	1	3	2	1	2	2	0	0	0	4	4	8	17.2
50yr	1	3	2	1	2	2	0	0	0	4	4	8	17.2
019N-020N 044W-043W 100yr	3	3	2	1	0	2	0	0	0	2	6	8	16.2
50yr	3	3	2	1	0	2	0	0	0	2	6	8	16.2
019N-020N 043W-042W 100yr	2	3	1	2	0	2	0	0	0	2	5	7	12.4
50yr	2	3	1	2	0	2	0	0	0	2	5	7	12.4
019N-020N 042W-041W 100yr	1	5	4	1	0	0	0	0	0	0	6	6	12.0
50yr	1	5	4	1	0	0	0	0	0	0	6	6	12.0
019N-020N 041W-040W 100yr	0	5	4	1	2	0	0	0	0	2	5	7	9.8
50yr	0	4	3	1	2	0	0	0	0	2	4	6	9.1
019N-020N 040W-039W 100yr	0	3	3	0	1	0	0	0	0	1	3	4	12.3
50yr	0	2	2	0	1	0	0	0	0	1	2	3	11.8
019N-020N 039W-038W 100yr	0	4	4	0	1	1	0	0	0	2	4	6	13.4

Grid Cell	TD	TS	G	S	S1	S2	S3	S4	S5	H	<H	All	Spd
50yr	0	3	3	0	1	1	0	0	0	2	3	5	13.1
019N-020N 038W-037W 100yr	1	2	2	0	1	1	0	0	0	2	3	5	14.5
50yr	1	1	1	0	1	1	0	0	0	2	2	4	14.2
019N-020N 037W-036W 100yr	2	3	3	0	1	0	0	0	0	1	5	6	14.0
50yr	2	3	3	0	1	0	0	0	0	1	5	6	14.0
019N-020N 036W-035W 100yr	2	4	4	0	0	0	0	0	0	0	6	6	12.7
50yr	2	4	4	0	0	0	0	0	0	0	6	6	12.7
019N-020N 035W-034W 100yr	1	3	3	0	0	0	0	0	0	0	4	4	12.8
50yr	1	3	3	0	0	0	0	0	0	0	4	4	12.8
019N-020N 034W-033W 100yr	0	2	2	0	0	0	0	0	0	0	2	2	19.0
50yr	0	2	2	0	0	0	0	0	0	0	2	2	19.0
019N-020N 033W-032W 100yr	0	4	4	0	0	0	0	0	0	0	4	4	15.7
50yr	0	3	3	0	0	0	0	0	0	0	3	3	17.0
019N-020N 032W-031W 100yr	0	4	4	0	0	0	0	0	0	0	4	4	13.8
50yr	0	3	3	0	0	0	0	0	0	0	3	3	17.0
019N-020N 031W-030W 100yr	0	2	2	0	0	0	0	0	0	0	2	2	7.9
50yr	0	1	1	0	0	0	0	0	0	0	1	1	12.7
019N-020N 030W-029W 100yr	1	1	0	1	0	0	0	0	0	0	2	2	16.2
50yr	1	1	0	1	0	0	0	0	0	0	2	2	16.2
019N-020N 029W-028W 100yr	1	1	0	1	0	0	0	0	0	0	2	2	16.3
50yr	1	1	0	1	0	0	0	0	0	0	2	2	16.3
019N-020N 028W-027W 100yr	2	1	0	1	0	0	0	0	0	0	3	3	15.0
50yr	2	1	0	1	0	0	0	0	0	0	3	3	15.0
019N-020N 027W-026W 100yr	2	0	0	0	0	0	0	0	0	0	2	2	15.0
50yr	2	0	0	0	0	0	0	0	0	0	2	2	15.0
019N-020N 025W-024W 100yr	1	1	0	1	0	0	0	0	0	0	2	2	6.0
50yr	1	1	0	1	0	0	0	0	0	0	2	2	6.0
019N-020N 024W-023W 100yr	1	1	1	0	0	0	0	0	0	0	2	2	11.0
50yr	1	1	1	0	0	0	0	0	0	0	2	2	11.0
019N-020N 022W-021W 100yr	0	1	0	1	0	0	0	0	0	0	1	1	14.0
50yr	0	1	0	1	0	0	0	0	0	0	1	1	14.0
019N-020N 020W-019W 100yr	0	1	1	0	0	0	0	0	0	0	1	1	6.2
50yr	0	1	1	0	0	0	0	0	0	0	1	1	6.2
019N-020N 019W-018W 100yr	0	1	1	0	0	0	0	0	0	0	1	1	6.1
50yr	0	1	1	0	0	0	0	0	0	0	1	1	6.1

020°N to 021°N

Grid Cell	TD	TS	G	S	S1	S2	S3	S4	S5	H	<H	All	Spd
020N-021N 107W-106W 100yr	1	0	0	0	0	0	0	0	0	0	1	1	6.5
50yr	1	0	0	0	0	0	0	0	0	0	1	1	6.5
020N-021N 106W-105W 100yr	1	0	0	0	0	0	0	0	0	0	1	1	7.6
50yr	1	0	0	0	0	0	0	0	0	0	1	1	7.6
020N-021N 105W-104W 100yr	1	0	0	0	0	0	0	0	0	0	1	1	20.6
50yr	1	0	0	0	0	0	0	0	0	0	1	1	20.6
020N-021N 104W-103W 100yr	1	0	0	0	0	0	0	0	0	0	1	1	20.6

Grid Cell		TD	TS	G	S	S1	S2	S3	S4	S5	H	<H	All	Spd
	50yr	1	0	0	0	0	0	0	0	0	0	1	1	20.6
020N-021N 103W-102W	100yr	0	1	1	0	0	0	0	0	0	0	1	1	21.1
	50yr	0	1	1	0	0	0	0	0	0	0	1	1	21.1
020N-021N 102W-101W	100yr	1	1	1	0	0	0	0	0	0	0	2	2	17.5
	50yr	1	1	1	0	0	0	0	0	0	0	2	2	17.5
020N-021N 101W-100W	100yr	0	1	0	1	1	0	0	0	0	1	1	2	16.5
	50yr	0	1	0	1	1	0	0	0	0	1	1	2	16.5
020N-021N 100W-099W	100yr	0	2	1	1	2	0	0	0	0	2	2	4	15.9
	50yr	0	2	1	1	1	0	0	0	0	1	2	3	13.1
020N-021N 099W-098W	100yr	0	3	2	1	2	1	0	0	0	3	3	6	13.9
	50yr	0	1	0	1	1	1	0	0	0	2	1	3	10.4
020N-021N 098W-097W	100yr	0	8	7	1	2	2	0	0	0	4	8	12	10.7
	50yr	0	4	3	1	1	2	0	0	0	3	4	7	8.2
020N-021N 097W-096W	100yr	1	9	6	3	4	2	0	0	0	6	10	16	9.1
	50yr	1	5	3	2	2	2	0	0	0	4	6	10	7.5
020N-021N 096W-095W	100yr	2	12	5	7	4	1	0	0	0	5	14	19	8.9
	50yr	2	7	1	6	3	0	0	0	0	3	9	12	8.3
020N-021N 095W-094W	100yr	3	20	13	7	4	1	0	0	0	5	23	28	9.0
	50yr	3	8	3	5	2	0	0	0	0	2	11	13	8.4
020N-021N 094W-093W	100yr	4	19	14	5	2	0	0	0	0	2	23	25	9.0
	50yr	4	8	6	2	1	0	0	0	0	1	12	13	8.3
020N-021N 093W-092W	100yr	6	16	11	5	4	0	0	0	0	4	22	26	8.6
	50yr	6	6	5	1	2	0	0	0	0	2	12	14	7.3
020N-021N 092W-091W	100yr	4	17	11	6	2	1	0	0	0	3	21	24	8.6
	50yr	4	6	4	2	1	1	0	0	0	2	10	12	7.1
020N-021N 091W-090W	100yr	3	19	15	4	2	2	0	0	0	4	22	26	9.5
	50yr	3	6	5	1	0	1	0	0	0	1	9	10	8.3
020N-021N 090W-089W	100yr	5	15	12	3	4	3	0	1	0	8	20	28	10.4
	50yr	5	3	3	0	0	1	0	1	0	2	8	10	9.5
020N-021N 089W-088W	100yr	5	8	7	1	4	6	1	2	0	13	13	26	10.2
	50yr	5	0	0	0	0	2	1	2	0	5	5	10	9.3
020N-021N 088W-087W	100yr	5	9	8	1	3	7	1	1	1	13	14	27	10.8
	50yr	5	2	2	0	0	1	1	1	1	4	7	11	11.1
020N-021N 087W-086W	100yr	6	15	12	3	3	6	4	0	1	14	21	35	10.8
	50yr	6	5	4	1	0	1	3	0	1	5	11	16	10.0
020N-021N 086W-085W	100yr	5	16	13	3	4	6	4	0	1	15	21	36	10.1
	50yr	5	5	4	1	1	1	1	0	1	4	10	14	9.3
020N-021N 085W-084W	100yr	3	19	14	5	8	5	2	0	1	16	22	38	11.1
	50yr	3	6	3	3	1	0	0	0	1	2	9	11	10.0
020N-021N 084W-083W	100yr	7	17	9	8	4	3	6	0	1	14	24	38	10.5
	50yr	7	6	2	4	1	2	0	0	1	4	13	17	9.7
020N-021N 083W-082W	100yr	3	13	10	3	6	3	3	1	0	13	16	29	9.8
	50yr	3	3	2	1	1	0	0	1	0	2	6	8	10.1
020N-021N 082W-081W	100yr	3	12	9	3	2	2	2	2	0	8	15	23	10.8
	50yr	3	2	2	0	1	0	0	2	0	3	5	8	11.4
020N-021N 081W-080W	100yr	3	6	4	2	3	2	2	1	0	8	9	17	11.1
	50yr	3	0	0	0	1	0	0	1	0	2	3	5	12.7
020N-021N 080W-079W	100yr	3	8	7	1	3	1	2	1	0	7	11	18	11.3

Grid Cell	TD	TS	G	S	S1	S2	S3	S4	S5	H	<H	All	Spd
50yr	3	3	2	1	1	0	0	0	0	1	6	7	11.7
020N-021N 079W-078W 100yr	4	5	4	1	3	1	1	1	0	6	9	15	11.1
50yr	4	4	3	1	3	1	0	0	0	4	8	12	10.7
020N-021N 078W-077W 100yr	3	7	5	2	1	0	3	0	0	4	10	14	10.7
50yr	3	3	2	1	1	0	3	0	0	4	6	10	10.1
020N-021N 077W-076W 100yr	3	9	5	4	2	0	3	0	0	5	12	17	12.1
50yr	3	1	1	0	2	0	3	0	0	5	4	9	11.9
020N-021N 076W-075W 100yr	4	9	7	2	3	0	2	0	0	5	13	18	11.5
50yr	4	1	1	0	2	0	2	0	0	4	5	9	11.9
020N-021N 075W-074W 100yr	6	5	4	1	3	0	1	0	0	4	11	15	12.6
50yr	6	0	0	0	3	0	1	0	0	4	6	10	11.8
020N-021N 074W-073W 100yr	3	2	1	1	2	2	0	0	0	4	5	9	11.8
50yr	2	1	1	0	1	2	0	0	0	3	3	6	10.7
020N-021N 073W-072W 100yr	4	7	7	0	2	1	0	0	0	3	11	14	13.4
50yr	3	2	2	0	1	1	0	0	0	2	5	7	11.4
020N-021N 072W-071W 100yr	5	11	10	1	1	3	0	1	0	5	16	21	12.6
50yr	3	6	5	1	0	1	0	0	0	1	9	10	12.6
020N-021N 071W-070W 100yr	4	10	8	2	3	4	1	1	0	9	14	23	12.6
50yr	4	4	3	1	2	2	0	0	0	4	8	12	12.1
020N-021N 070W-069W 100yr	3	14	12	2	6	2	2	1	0	11	17	28	13.1
50yr	3	4	3	1	3	1	0	0	0	4	7	11	11.7
020N-021N 069W-068W 100yr	3	15	12	3	6	2	3	1	0	12	18	30	13.6
50yr	3	4	3	1	2	1	1	0	0	4	7	11	13.7
020N-021N 068W-067W 100yr	2	13	9	4	5	1	8	0	0	14	15	29	12.8
50yr	2	5	4	1	3	0	4	0	0	7	7	14	12.9
020N-021N 067W-066W 100yr	1	16	9	7	4	1	6	1	0	12	17	29	12.5
50yr	1	7	3	4	3	0	3	1	0	7	8	15	12.4
020N-021N 066W-065W 100yr	0	17	11	6	2	1	3	3	0	9	17	26	11.7
50yr	0	9	5	4	2	0	0	2	0	4	9	13	12.8
020N-021N 065W-064W 100yr	3	13	12	1	1	2	1	4	0	8	16	24	11.0
50yr	3	4	4	0	1	0	0	2	0	3	7	10	12.1
020N-021N 064W-063W 100yr	8	9	9	0	2	1	2	0	0	5	17	22	13.2
50yr	8	3	3	0	2	1	0	0	0	3	11	14	12.8
020N-021N 063W-062W 100yr	7	12	8	4	7	1	2	1	0	11	19	30	13.1
50yr	7	5	2	3	5	0	0	0	0	5	12	17	12.8
020N-021N 062W-061W 100yr	4	13	6	7	5	2	1	2	0	10	17	27	13.5
50yr	4	7	2	5	2	1	1	1	0	5	11	16	13.9
020N-021N 061W-060W 100yr	5	12	6	6	7	3	0	3	0	13	17	30	13.9
50yr	5	6	1	5	4	2	0	2	0	8	11	19	12.6
020N-021N 060W-059W 100yr	4	13	8	5	5	3	0	2	0	10	17	27	13.8
50yr	4	7	3	4	3	1	0	1	0	5	11	16	13.7
020N-021N 059W-058W 100yr	2	6	5	1	7	3	0	2	0	12	8	20	11.8
50yr	2	4	4	0	2	2	0	1	0	5	6	11	12.8
020N-021N 058W-057W 100yr	2	8	7	1	4	5	1	1	0	11	10	21	12.5
50yr	2	5	5	0	2	2	0	1	0	5	7	12	12.5
020N-021N 057W-056W 100yr	3	7	6	1	3	3	0	2	0	8	10	18	12.0
50yr	3	4	3	1	2	1	0	2	0	5	7	12	11.9
020N-021N 056W-055W 100yr	2	5	4	1	7	2	2	1	0	12	7	19	12.5

Grid Cell		TD	TS	G	S	S1	S2	S3	S4	S5	H	<H	All	Spd
	50yr	2	2	1	1	5	2	1	1	0	9	4	13	12.8
020N-021N 055W-054W	100yr	2	5	4	1	6	1	3	0	0	10	7	17	14.0
	50yr	2	3	2	1	5	1	2	0	0	8	5	13	13.0
020N-021N 054W-053W	100yr	5	5	5	0	5	1	3	0	0	9	10	19	15.4
	50yr	5	2	2	0	1	0	2	0	0	3	7	10	14.8
020N-021N 053W-052W	100yr	7	5	5	0	3	3	1	0	0	7	12	19	15.3
	50yr	7	3	3	0	0	2	1	0	0	3	10	13	14.1
020N-021N 052W-051W	100yr	6	4	3	1	3	1	1	0	0	5	10	15	13.7
	50yr	6	3	3	0	0	0	1	0	0	1	9	10	13.3
020N-021N 051W-050W	100yr	4	5	4	1	3	2	1	0	1	7	9	16	14.6
	50yr	4	3	3	0	0	1	1	0	1	3	7	10	13.9
020N-021N 050W-049W	100yr	2	3	3	0	1	3	2	0	1	7	5	12	13.1
	50yr	2	2	2	0	0	2	2	0	1	5	4	9	13.3
020N-021N 049W-048W	100yr	1	3	2	1	1	2	1	0	0	4	4	8	12.8
	50yr	1	3	2	1	0	2	1	0	0	3	4	7	12.9
020N-021N 048W-047W	100yr	1	6	3	3	0	4	1	0	0	5	7	12	13.4
	50yr	1	6	3	3	0	4	1	0	0	5	7	12	13.4
020N-021N 047W-046W	100yr	2	7	5	2	0	2	0	0	0	2	9	11	12.6
	50yr	2	5	3	2	0	2	0	0	0	2	7	9	12.7
020N-021N 046W-045W	100yr	0	6	5	1	0	1	0	0	0	1	6	7	13.0
	50yr	0	4	3	1	0	1	0	0	0	1	4	5	13.1
020N-021N 045W-044W	100yr	0	4	3	1	0	0	0	0	0	0	4	4	12.9
	50yr	0	4	3	1	0	0	0	0	0	0	4	4	12.9
020N-021N 044W-043W	100yr	2	4	2	2	0	0	0	0	0	0	6	6	12.6
	50yr	2	3	1	2	0	0	0	0	0	0	5	5	12.6
020N-021N 043W-042W	100yr	0	7	5	2	0	1	0	0	0	1	7	8	11.3
	50yr	0	6	4	2	0	1	0	0	0	1	6	7	11.2
020N-021N 042W-041W	100yr	1	6	5	1	0	0	0	0	0	0	7	7	9.9
	50yr	1	5	4	1	0	0	0	0	0	0	6	6	9.5
020N-021N 041W-040W	100yr	1	4	3	1	4	0	0	0	0	4	5	9	10.1
	50yr	1	3	2	1	4	0	0	0	0	4	4	8	9.8
020N-021N 040W-039W	100yr	1	5	4	1	2	0	0	0	0	2	6	8	12.2
	50yr	1	4	3	1	2	0	0	0	0	2	5	7	11.8
020N-021N 039W-038W	100yr	1	6	4	2	2	0	0	0	0	2	7	9	13.3
	50yr	1	5	3	2	2	0	0	0	0	2	6	8	13.1
020N-021N 038W-037W	100yr	2	4	3	1	1	0	0	0	0	1	6	7	13.8
	50yr	2	4	3	1	1	0	0	0	0	1	6	7	13.8
020N-021N 037W-036W	100yr	2	4	3	1	0	0	0	0	0	0	6	6	13.2
	50yr	2	4	3	1	0	0	0	0	0	0	6	6	13.2
020N-021N 036W-035W	100yr	1	4	3	1	0	0	0	0	0	0	5	5	13.5
	50yr	1	4	3	1	0	0	0	0	0	0	5	5	13.5
020N-021N 035W-034W	100yr	0	2	2	0	0	0	0	0	0	0	2	2	17.1
	50yr	0	2	2	0	0	0	0	0	0	0	2	2	17.1
020N-021N 034W-033W	100yr	0	2	2	0	0	0	0	0	0	0	2	2	17.6
	50yr	0	2	2	0	0	0	0	0	0	0	2	2	17.6
020N-021N 033W-032W	100yr	0	3	3	0	0	0	0	0	0	0	3	3	12.3
	50yr	0	1	1	0	0	0	0	0	0	0	1	1	18.0
020N-021N 032W-031W	100yr	1	2	1	1	0	0	0	0	0	0	3	3	13.0

Grid Cell	TD	TS	G	S	S1	S2	S3	S4	S5	H	<H	All	Spd
50yr	1	1	0	1	0	0	0	0	0	0	2	2	16.7
020N-021N 031W-030W 100yr	1	1	0	1	0	0	0	0	0	0	2	2	16.2
50yr	1	1	0	1	0	0	0	0	0	0	2	2	16.2
020N-021N 030W-029W 100yr	1	1	0	1	0	0	0	0	0	0	2	2	15.7
50yr	1	1	0	1	0	0	0	0	0	0	2	2	15.7
020N-021N 029W-028W 100yr	1	0	0	0	0	0	0	0	0	0	1	1	12.0
50yr	1	0	0	0	0	0	0	0	0	0	1	1	12.0
020N-021N 028W-027W 100yr	1	0	0	0	0	0	0	0	0	0	1	1	12.3
50yr	1	0	0	0	0	0	0	0	0	0	1	1	12.3
020N-021N 026W-025W 100yr	0	1	0	1	0	0	0	0	0	0	1	1	6.0
50yr	0	1	0	1	0	0	0	0	0	0	1	1	6.0
020N-021N 025W-024W 100yr	0	1	0	1	0	0	0	0	0	0	1	1	4.3
50yr	0	1	0	1	0	0	0	0	0	0	1	1	4.3
020N-021N 024W-023W 100yr	1	1	1	0	0	0	0	0	0	0	2	2	11.8
50yr	1	1	1	0	0	0	0	0	0	0	2	2	11.8
020N-021N 023W-022W 100yr	1	0	0	0	0	0	0	0	0	0	1	1	7.7
50yr	1	0	0	0	0	0	0	0	0	0	1	1	7.7
020N-021N 022W-021W 100yr	1	1	0	1	0	0	0	0	0	0	2	2	11.4
50yr	1	1	0	1	0	0	0	0	0	0	2	2	11.4
020N-021N 021W-020W 100yr	1	0	0	0	0	0	0	0	0	0	1	1	6.6
50yr	1	0	0	0	0	0	0	0	0	0	1	1	6.6
020N-021N 020W-019W 100yr	0	1	1	0	0	0	0	0	0	0	1	1	6.4
50yr	0	1	1	0	0	0	0	0	0	0	1	1	6.4

021°N to 022°N

Grid Cell	TD	TS	G	S	S1	S2	S3	S4	S5	H	<H	All	Spd
021N-022N 108W-107W 100yr	2	0	0	0	0	0	0	0	0	0	2	2	10.3
50yr	2	0	0	0	0	0	0	0	0	0	2	2	10.3
021N-022N 107W-106W 100yr	2	0	0	0	0	0	0	0	0	0	2	2	10.4
50yr	2	0	0	0	0	0	0	0	0	0	2	2	10.4
021N-022N 106W-105W 100yr	1	0	0	0	0	0	0	0	0	0	1	1	15.4
50yr	1	0	0	0	0	0	0	0	0	0	1	1	15.4
021N-022N 105W-104W 100yr	2	0	0	0	0	0	0	0	0	0	2	2	16.1
50yr	2	0	0	0	0	0	0	0	0	0	2	2	16.1
021N-022N 104W-103W 100yr	2	1	1	0	0	0	0	0	0	0	3	3	15.8
50yr	2	1	1	0	0	0	0	0	0	0	3	3	15.8
021N-022N 103W-102W 100yr	2	1	1	0	0	0	0	0	0	0	3	3	15.5
50yr	2	1	1	0	0	0	0	0	0	0	3	3	15.5
021N-022N 102W-101W 100yr	2	0	0	0	0	0	0	0	0	0	2	2	14.2
50yr	2	0	0	0	0	0	0	0	0	0	2	2	14.2
021N-022N 101W-100W 100yr	1	2	2	0	0	0	0	0	0	0	3	3	11.7
50yr	1	1	1	0	0	0	0	0	0	0	2	2	11.1
021N-022N 100W-099W 100yr	1	6	4	2	2	0	0	0	0	2	7	9	10.4
50yr	1	2	2	0	2	0	0	0	0	2	3	5	10.3
021N-022N 099W-098W 100yr	0	4	3	1	4	2	0	0	0	6	4	10	13.7
50yr	0	0	0	0	2	1	0	0	0	3	0	3	13.5
021N-022N 098W-097W 100yr	0	7	5	2	5	2	0	0	0	7	7	14	12.0

Grid Cell		TD	TS	G	S	S1	S2	S3	S4	S5	H	<H	All	Spd
	50yr	0	4	3	1	3	1	0	0	0	4	4	8	10.1
021N-022N 097W-096W	100yr	3	6	2	4	4	4	0	1	0	9	9	18	9.8
	50yr	3	4	1	3	2	1	0	1	0	4	7	11	10.0
021N-022N 096W-095W	100yr	5	16	8	8	4	3	2	0	0	9	21	30	8.5
	50yr	5	9	3	6	2	0	2	0	0	4	14	18	8.4
021N-022N 095W-094W	100yr	4	17	12	5	7	3	1	0	0	11	21	32	9.0
	50yr	4	6	4	2	2	1	1	0	0	4	10	14	8.5
021N-022N 094W-093W	100yr	3	13	8	5	6	5	1	1	0	13	16	29	8.5
	50yr	3	6	4	2	1	3	1	1	0	6	9	15	7.5
021N-022N 093W-092W	100yr	2	14	10	4	4	7	0	1	0	12	16	28	10.0
	50yr	2	4	3	1	2	4	0	1	0	7	6	13	7.6
021N-022N 092W-091W	100yr	2	10	9	1	3	5	0	1	0	9	12	21	10.6
	50yr	2	1	1	0	1	4	0	1	0	6	3	9	9.1
021N-022N 091W-090W	100yr	1	10	10	0	2	4	3	1	0	10	11	21	9.8
	50yr	1	1	1	0	1	1	2	1	0	5	2	7	9.2
021N-022N 090W-089W	100yr	4	10	8	2	1	4	0	3	0	8	14	22	10.5
	50yr	4	4	2	2	0	1	0	3	0	4	8	12	10.9
021N-022N 089W-088W	100yr	4	11	7	4	1	5	1	1	0	8	15	23	10.5
	50yr	4	5	2	3	0	1	1	1	0	3	9	12	10.5
021N-022N 088W-087W	100yr	8	10	5	5	2	3	2	0	1	8	18	26	11.5
	50yr	8	4	1	3	0	0	0	0	1	1	12	13	10.6
021N-022N 087W-086W	100yr	7	15	10	5	2	4	2	0	1	9	22	31	11.6
	50yr	7	5	2	3	1	1	0	0	1	3	12	15	11.5
021N-022N 086W-085W	100yr	6	17	11	6	3	3	3	0	1	10	23	33	11.6
	50yr	6	6	3	3	1	0	0	0	1	2	12	14	12.6
021N-022N 085W-084W	100yr	7	14	10	4	4	3	5	0	1	13	21	34	10.2
	50yr	7	4	2	2	1	0	1	0	1	3	11	14	10.5
021N-022N 084W-083W	100yr	9	18	13	5	5	3	4	0	0	12	27	39	10.1
	50yr	9	6	4	2	1	2	0	0	0	3	15	18	9.6
021N-022N 083W-082W	100yr	3	14	9	5	3	1	3	0	0	7	17	24	10.0
	50yr	3	7	3	4	1	1	0	0	0	2	10	12	11.7
021N-022N 082W-081W	100yr	2	9	6	3	1	2	1	1	0	5	11	16	9.1
	50yr	2	4	2	2	1	0	0	1	0	2	6	8	9.6
021N-022N 081W-080W	100yr	2	11	10	1	0	0	1	1	0	2	13	15	9.9
	50yr	2	4	4	0	0	0	0	1	0	1	6	7	9.5
021N-022N 080W-079W	100yr	3	11	7	4	4	1	0	0	0	5	14	19	10.6
	50yr	2	3	1	2	3	0	0	0	0	3	5	8	9.7
021N-022N 079W-078W	100yr	4	6	4	2	8	0	1	1	0	10	10	20	11.2
	50yr	3	1	0	1	6	0	0	0	0	6	4	10	9.7
021N-022N 078W-077W	100yr	3	7	5	2	3	0	0	1	0	4	10	14	15.1
	50yr	2	2	1	1	3	0	0	0	0	3	4	7	11.8
021N-022N 077W-076W	100yr	3	7	6	1	2	0	0	0	0	2	10	12	15.5
	50yr	2	1	1	0	2	0	0	0	0	2	3	5	13.5
021N-022N 076W-075W	100yr	3	4	4	0	3	1	0	0	0	4	7	11	9.2
	50yr	2	2	2	0	2	1	0	0	0	3	4	7	9.6
021N-022N 075W-074W	100yr	4	9	7	2	3	0	0	0	0	3	13	16	11.9
	50yr	3	4	3	1	2	0	0	0	0	2	7	9	11.1
021N-022N 074W-073W	100yr	3	9	7	2	2	2	1	0	0	5	12	17	13.2

Grid Cell	TD	TS	G	S	S1	S2	S3	S4	S5	H	<H	All	Spd
50yr	2	3	3	0	2	1	0	0	0	3	5	8	11.6
021N-022N 073W-072W 100yr	4	15	12	3	3	1	2	1	0	7	19	26	12.2
50yr	4	5	5	0	1	0	0	0	0	1	9	10	11.8
021N-022N 072W-071W 100yr	5	13	11	2	5	3	1	2	0	11	18	29	12.4
50yr	5	4	4	0	1	1	0	0	0	2	9	11	12.6
021N-022N 071W-070W 100yr	4	16	11	5	5	3	2	3	0	13	20	33	12.9
50yr	4	4	1	3	1	3	1	1	0	6	8	14	12.0
021N-022N 070W-069W 100yr	1	16	10	6	6	2	3	2	0	13	17	30	12.7
50yr	1	4	1	3	3	1	1	1	0	6	5	11	12.1
021N-022N 069W-068W 100yr	1	15	11	4	7	3	2	3	0	15	16	31	12.6
50yr	1	3	3	0	4	2	1	2	0	9	4	13	13.0
021N-022N 068W-067W 100yr	1	11	8	3	6	1	4	1	0	12	12	24	12.4
50yr	1	3	3	0	5	1	2	1	0	9	4	13	12.4
021N-022N 067W-066W 100yr	0	8	7	1	2	2	1	5	0	10	8	18	11.4
50yr	0	4	3	1	0	1	1	2	0	4	4	8	12.5
021N-022N 066W-065W 100yr	2	9	6	3	2	2	0	4	0	8	11	19	11.7
50yr	2	4	3	1	2	1	0	1	0	4	6	10	12.2
021N-022N 065W-064W 100yr	6	11	8	3	5	1	1	2	0	9	17	26	13.5
50yr	6	6	4	2	4	0	0	0	0	4	12	16	13.6
021N-022N 064W-063W 100yr	7	17	11	6	5	0	2	2	0	9	24	33	13.6
50yr	7	11	7	4	3	0	1	1	0	5	18	23	13.5
021N-022N 063W-062W 100yr	5	16	9	7	8	3	0	3	0	14	21	35	13.2
50yr	5	10	6	4	4	2	0	2	0	8	15	23	13.3
021N-022N 062W-061W 100yr	2	12	10	2	6	2	1	4	0	13	14	27	13.3
50yr	2	8	7	1	2	2	0	3	0	7	10	17	13.4
021N-022N 061W-060W 100yr	4	11	8	3	8	5	0	1	0	14	15	29	13.4
50yr	4	6	4	2	4	3	0	1	0	8	10	18	13.8
021N-022N 060W-059W 100yr	2	9	8	1	5	6	1	0	0	12	11	23	12.5
50yr	2	7	6	1	2	3	1	0	0	6	9	15	12.2
021N-022N 059W-058W 100yr	2	8	7	1	3	5	1	1	0	10	10	20	13.0
50yr	2	5	4	1	1	3	1	1	0	6	7	13	12.6
021N-022N 058W-057W 100yr	3	9	8	1	3	5	4	1	0	13	12	25	12.3
50yr	3	4	4	0	3	3	3	1	0	10	7	17	11.9
021N-022N 057W-056W 100yr	3	10	10	0	6	3	4	0	0	13	13	26	12.8
50yr	3	5	5	0	4	2	3	0	0	9	8	17	12.2
021N-022N 056W-055W 100yr	2	4	4	0	6	4	3	0	0	13	6	19	12.3
50yr	2	2	2	0	3	2	2	0	0	7	4	11	13.5
021N-022N 055W-054W 100yr	2	4	3	1	3	3	1	0	0	7	6	13	12.9
50yr	2	3	2	1	1	0	1	0	0	2	5	7	13.7
021N-022N 054W-053W 100yr	6	4	3	1	2	2	1	0	0	5	10	15	15.9
50yr	6	3	2	1	0	0	1	0	0	1	9	10	16.6
021N-022N 053W-052W 100yr	4	5	5	0	4	2	0	0	0	6	9	15	14.1
50yr	4	4	4	0	1	0	0	0	0	1	8	9	14.1
021N-022N 052W-051W 100yr	3	4	3	1	1	2	1	0	0	4	7	11	15.8
50yr	3	2	2	0	0	0	1	0	0	1	5	6	16.7
021N-022N 051W-050W 100yr	1	2	2	0	0	1	2	0	1	4	3	7	14.9
50yr	1	1	1	0	0	0	2	0	1	3	2	5	15.2
021N-022N 050W-049W 100yr	0	3	2	1	1	3	0	0	0	4	3	7	13.7

Grid Cell	TD	TS	G	S	S1	S2	S3	S4	S5	H	<H	All	Spd
50yr	0	2	1	1	0	3	0	0	0	3	2	5	15.4
021N-022N 049W-048W 100yr	0	5	3	2	1	3	0	0	0	4	5	9	13.3
50yr	0	4	2	2	1	3	0	0	0	4	4	8	13.7
021N-022N 048W-047W 100yr	1	5	3	2	0	2	0	0	0	2	6	8	13.2
50yr	1	3	2	1	0	2	0	0	0	2	4	6	13.0
021N-022N 047W-046W 100yr	1	5	3	2	0	0	0	0	0	0	6	6	13.2
50yr	1	3	3	0	0	0	0	0	0	0	4	4	13.5
021N-022N 046W-045W 100yr	0	5	4	1	0	0	0	0	0	0	5	5	14.7
50yr	0	4	3	1	0	0	0	0	0	0	4	4	14.5
021N-022N 045W-044W 100yr	1	5	3	2	0	0	0	0	0	0	6	6	14.1
50yr	1	3	1	2	0	0	0	0	0	0	4	4	13.8
021N-022N 044W-043W 100yr	1	3	2	1	0	0	0	0	0	0	4	4	10.7
50yr	1	2	1	1	0	0	0	0	0	0	3	3	9.8
021N-022N 043W-042W 100yr	1	4	4	0	2	0	0	0	0	2	5	7	10.8
50yr	1	2	2	0	2	0	0	0	0	2	3	5	10.9
021N-022N 042W-041W 100yr	1	2	2	0	3	0	0	0	0	3	3	6	11.5
50yr	1	1	1	0	3	0	0	0	0	3	2	5	12.2
021N-022N 041W-040W 100yr	1	2	2	0	4	0	0	0	0	4	3	7	11.3
50yr	1	2	2	0	4	0	0	0	0	4	3	7	11.3
021N-022N 040W-039W 100yr	0	2	2	0	0	0	0	0	0	0	2	2	14.7
50yr	0	1	1	0	0	0	0	0	0	0	1	1	14.9
021N-022N 039W-038W 100yr	1	0	0	0	2	0	0	0	0	2	1	3	15.4
50yr	1	0	0	0	2	0	0	0	0	2	1	3	15.4
021N-022N 038W-037W 100yr	2	1	1	0	0	0	0	0	0	0	3	3	14.3
50yr	2	1	1	0	0	0	0	0	0	0	3	3	14.3
021N-022N 037W-036W 100yr	0	4	3	1	0	0	0	0	0	0	4	4	16.1
50yr	0	4	3	1	0	0	0	0	0	0	4	4	16.1
021N-022N 036W-035W 100yr	0	3	2	1	0	0	0	0	0	0	3	3	16.5
50yr	0	3	2	1	0	0	0	0	0	0	3	3	16.5
021N-022N 035W-034W 100yr	0	1	0	1	0	0	0	0	0	0	1	1	15.0
50yr	0	1	0	1	0	0	0	0	0	0	1	1	15.0
021N-022N 034W-033W 100yr	0	2	1	1	0	0	0	0	0	0	2	2	15.8
50yr	0	2	1	1	0	0	0	0	0	0	2	2	15.8
021N-022N 033W-032W 100yr	1	2	1	1	0	0	0	0	0	0	3	3	14.6
50yr	1	1	0	1	0	0	0	0	0	0	2	2	16.7
021N-022N 032W-031W 100yr	1	2	1	1	0	0	0	0	0	0	3	3	14.9
50yr	1	1	0	1	0	0	0	0	0	0	2	2	17.5
021N-022N 030W-029W 100yr	0	1	1	0	0	0	0	0	0	0	1	1	11.8
50yr	0	1	1	0	0	0	0	0	0	0	1	1	11.8
021N-022N 029W-028W 100yr	1	0	0	0	0	0	0	0	0	0	1	1	11.6
50yr	1	0	0	0	0	0	0	0	0	0	1	1	11.6
021N-022N 028W-027W 100yr	0	1	1	0	0	0	0	0	0	0	1	1	10.1
50yr	0	1	1	0	0	0	0	0	0	0	1	1	10.1
021N-022N 027W-026W 100yr	0	1	1	0	0	0	0	0	0	0	1	1	8.6
50yr	0	1	1	0	0	0	0	0	0	0	1	1	8.6
021N-022N 026W-025W 100yr	0	1	1	0	0	0	0	0	0	0	1	1	8.1
50yr	0	1	1	0	0	0	0	0	0	0	1	1	8.1
021N-022N 024W-023W 100yr	0	1	1	0	0	0	0	0	0	0	1	1	17.3

Grid Cell		TD	TS	G	S	S1	S2	S3	S4	S5	H	<H	All	Spd
	50yr	0	1	1	0	0	0	0	0	0	0	1	1	17.3
021N-022N 023W-022W	100yr	0	1	0	1	0	0	0	0	0	0	1	1	15.6
	50yr	0	1	0	1	0	0	0	0	0	0	1	1	15.6
021N-022N 022W-021W	100yr	0	1	0	1	0	0	0	0	0	0	1	1	15.6
	50yr	0	1	0	1	0	0	0	0	0	0	1	1	15.6

022°N to 023°N

Grid Cell		TD	TS	G	S	S1	S2	S3	S4	S5	H	<H	All	Spd
022N-023N 109W-108W	100yr	1	0	0	0	0	0	0	0	0	0	1	1	5.7
	50yr	1	0	0	0	0	0	0	0	0	0	1	1	5.7
022N-023N 108W-107W	100yr	2	0	0	0	0	0	0	0	0	0	2	2	12.9
	50yr	2	0	0	0	0	0	0	0	0	0	2	2	12.9
022N-023N 107W-106W	100yr	1	0	0	0	0	0	0	0	0	0	1	1	20.1
	50yr	1	0	0	0	0	0	0	0	0	0	1	1	20.1
022N-023N 106W-105W	100yr	1	0	0	0	0	0	0	0	0	0	1	1	20.1
	50yr	1	0	0	0	0	0	0	0	0	0	1	1	20.1
022N-023N 105W-104W	100yr	1	0	0	0	0	0	0	0	0	0	1	1	17.3
	50yr	1	0	0	0	0	0	0	0	0	0	1	1	17.3
022N-023N 104W-103W	100yr	0	1	1	0	0	0	0	0	0	0	1	1	19.2
	50yr	0	1	1	0	0	0	0	0	0	0	1	1	19.2
022N-023N 103W-102W	100yr	0	1	1	0	0	0	0	0	0	0	1	1	19.2
	50yr	0	1	1	0	0	0	0	0	0	0	1	1	19.2
022N-023N 102W-101W	100yr	0	0	0	0	1	0	0	0	0	1	0	1	18.5
	50yr	0	0	0	0	1	0	0	0	0	1	0	1	18.5
022N-023N 101W-100W	100yr	0	1	0	1	2	0	0	0	0	2	1	3	19.8
	50yr	0	0	0	0	1	0	0	0	0	1	0	1	18.5
022N-023N 100W-099W	100yr	1	8	4	4	2	0	0	0	0	2	9	11	13.0
	50yr	1	3	2	1	1	0	0	0	0	1	4	5	9.8
022N-023N 099W-098W	100yr	2	5	4	1	7	2	2	0	0	11	7	18	10.8
	50yr	1	0	0	0	3	1	2	0	0	6	1	7	7.9
022N-023N 098W-097W	100yr	1	6	5	1	6	2	1	2	0	11	7	18	9.9
	50yr	1	1	0	1	3	0	1	2	0	6	2	8	8.3
022N-023N 097W-096W	100yr	4	10	8	2	3	3	1	2	0	9	14	23	8.2
	50yr	4	5	3	2	1	0	1	2	0	4	9	13	7.4
022N-023N 096W-095W	100yr	3	13	11	2	6	2	2	1	0	11	16	27	9.0
	50yr	3	7	5	2	1	0	2	1	0	4	10	14	8.5
022N-023N 095W-094W	100yr	2	10	9	1	7	1	2	1	0	11	12	23	10.0
	50yr	2	4	3	1	2	0	2	1	0	5	6	11	8.7
022N-023N 094W-093W	100yr	2	13	10	3	4	2	2	1	0	9	15	24	9.8
	50yr	2	5	2	3	2	1	2	1	0	6	7	13	7.9
022N-023N 093W-092W	100yr	3	7	6	1	3	4	0	0	0	7	10	17	10.0
	50yr	3	2	1	1	1	1	0	0	0	2	5	7	7.3
022N-023N 092W-091W	100yr	6	6	5	1	2	2	0	0	0	4	12	16	9.3
	50yr	6	1	0	1	1	0	0	0	0	1	7	8	7.9
022N-023N 091W-090W	100yr	4	10	10	0	2	1	2	0	0	5	14	19	10.2
	50yr	4	3	3	0	2	0	0	0	0	2	7	9	10.5
022N-023N 090W-089W	100yr	4	9	7	2	0	1	2	0	1	4	13	17	10.4

Grid Cell	TD	TS	G	S	S1	S2	S3	S4	S5	H	<H	All	Spd
50yr	4	4	3	1	0	0	0	0	1	1	8	9	11.1
022N-023N 089W-088W 100yr	3	12	7	5	1	3	4	0	1	9	15	24	11.0
50yr	3	2	0	2	0	0	2	0	1	3	5	8	11.1
022N-023N 088W-087W 100yr	6	13	8	5	1	1	4	0	1	7	19	26	11.1
50yr	6	2	1	1	0	0	2	0	1	3	8	11	10.4
022N-023N 087W-086W 100yr	6	16	10	6	1	5	2	1	0	9	22	31	10.5
50yr	6	5	2	3	0	2	1	0	0	3	11	14	10.4
022N-023N 086W-085W 100yr	5	19	12	7	4	4	1	1	0	10	24	34	10.4
50yr	5	9	5	4	0	1	0	0	0	1	14	15	11.9
022N-023N 085W-084W 100yr	5	15	9	6	3	1	7	0	0	11	20	31	10.5
50yr	5	8	5	3	0	1	1	0	0	2	13	15	12.1
022N-023N 084W-083W 100yr	3	17	12	5	3	2	6	0	0	11	20	31	10.9
50yr	3	7	4	3	2	1	0	0	0	3	10	13	10.7
022N-023N 083W-082W 100yr	2	10	7	3	1	2	6	0	0	9	12	21	12.0
50yr	2	5	2	3	0	1	0	0	0	1	7	8	13.2
022N-023N 082W-081W 100yr	0	6	5	1	1	3	2	0	0	6	6	12	13.5
50yr	0	4	3	1	0	2	0	0	0	2	4	6	13.3
022N-023N 081W-080W 100yr	1	9	8	1	1	2	1	1	0	5	10	15	11.1
50yr	1	4	4	0	1	2	0	1	0	4	5	9	11.6
022N-023N 080W-079W 100yr	1	11	7	4	3	3	1	0	0	7	12	19	11.2
50yr	1	3	2	1	3	2	0	0	0	5	4	9	12.7
022N-023N 079W-078W 100yr	2	9	7	2	4	3	1	1	0	9	11	20	12.6
50yr	2	1	0	1	1	2	0	1	0	4	3	7	12.8
022N-023N 078W-077W 100yr	2	9	8	1	4	1	0	2	0	7	11	18	13.5
50yr	2	2	1	1	0	1	0	1	0	2	4	6	11.5
022N-023N 077W-076W 100yr	3	11	9	2	3	1	1	2	0	7	14	21	13.4
50yr	3	3	2	1	1	1	0	1	0	3	6	9	12.0
022N-023N 076W-075W 100yr	5	12	8	4	3	1	1	1	0	6	17	23	11.7
50yr	5	3	2	1	1	1	0	1	0	3	8	11	11.0
022N-023N 075W-074W 100yr	3	11	5	6	2	0	2	3	0	7	14	21	12.2
50yr	3	2	0	2	0	0	0	1	0	1	5	6	11.6
022N-023N 074W-073W 100yr	2	18	9	9	6	2	2	3	0	13	20	33	12.4
50yr	2	5	2	3	1	1	0	1	0	3	7	10	11.1
022N-023N 073W-072W 100yr	2	16	13	3	8	1	2	3	0	14	18	32	12.5
50yr	2	4	3	1	2	1	0	1	0	4	6	10	12.1
022N-023N 072W-071W 100yr	3	12	11	1	6	2	2	3	0	13	15	28	12.5
50yr	3	3	3	0	1	1	2	1	0	5	6	11	11.5
022N-023N 071W-070W 100yr	1	17	15	2	5	4	3	3	0	15	18	33	11.6
50yr	1	4	3	1	1	3	3	1	0	8	5	13	10.3
022N-023N 070W-069W 100yr	1	15	12	3	6	3	0	3	0	12	16	28	12.5
50yr	1	5	3	2	3	2	0	1	0	6	6	12	12.1
022N-023N 069W-068W 100yr	1	9	7	2	6	3	3	3	0	15	10	25	12.8
50yr	1	3	2	1	4	2	1	1	0	8	4	12	13.2
022N-023N 068W-067W 100yr	1	8	6	2	4	1	3	4	0	12	9	21	12.2
50yr	1	4	3	1	4	0	2	1	0	7	5	12	13.3
022N-023N 067W-066W 100yr	3	7	5	2	3	3	3	4	0	13	10	23	11.8
50yr	3	4	3	1	2	1	3	1	0	7	7	14	12.9
022N-023N 066W-065W 100yr	5	11	6	5	5	2	3	0	0	10	16	26	13.8

Grid Cell	TD	TS	G	S	S1	S2	S3	S4	S5	H	<H	All	Spd
50yr	5	7	4	3	3	1	2	0	0	6	12	18	14.0
022N-023N 065W-064W 100yr	4	15	8	7	8	3	3	0	0	14	19	33	13.8
50yr	4	10	5	5	4	1	2	0	0	7	14	21	13.8
022N-023N 064W-063W 100yr	3	10	8	2	9	3	3	2	0	17	13	30	12.0
50yr	3	5	4	1	5	2	2	2	0	11	8	19	11.6
022N-023N 063W-062W 100yr	2	9	8	1	8	3	2	2	0	15	11	26	11.6
50yr	2	4	4	0	4	2	1	2	0	9	6	15	10.9
022N-023N 062W-061W 100yr	1	3	2	1	4	4	3	0	0	11	4	15	11.4
50yr	1	3	2	1	2	2	2	0	0	6	4	10	11.7
022N-023N 061W-060W 100yr	2	8	4	4	2	6	2	0	0	10	10	20	12.0
50yr	2	5	3	2	1	2	2	0	0	5	7	12	13.8
022N-023N 060W-059W 100yr	2	8	6	2	2	3	4	0	0	9	10	19	13.4
50yr	2	5	4	1	2	1	3	0	0	6	7	13	14.3
022N-023N 059W-058W 100yr	4	9	7	2	6	0	3	1	0	10	13	23	12.8
50yr	4	3	3	0	5	0	2	1	0	8	7	15	14.3
022N-023N 058W-057W 100yr	4	8	5	3	6	1	5	0	0	12	12	24	12.1
50yr	4	5	4	1	4	1	3	0	0	8	9	17	12.4
022N-023N 057W-056W 100yr	5	5	4	1	4	2	1	0	0	7	10	17	12.3
50yr	5	3	3	0	1	1	0	0	0	2	8	10	12.5
022N-023N 056W-055W 100yr	2	8	5	3	2	2	0	0	0	4	10	14	13.0
50yr	2	6	5	1	1	0	0	0	0	1	8	9	14.0
022N-023N 055W-054W 100yr	1	8	7	1	0	2	0	0	0	2	9	11	13.8
50yr	1	7	6	1	0	0	0	0	0	0	8	8	14.6
022N-023N 054W-053W 100yr	2	7	5	2	1	2	1	0	0	4	9	13	17.4
50yr	2	5	4	1	0	0	1	0	0	1	7	8	17.2
022N-023N 053W-052W 100yr	1	5	4	1	3	2	1	0	0	6	6	12	16.3
50yr	1	3	3	0	0	1	1	0	0	2	4	6	14.4
022N-023N 052W-051W 100yr	0	5	5	0	1	1	2	0	0	4	5	9	13.5
50yr	0	4	4	0	0	0	2	0	0	2	4	6	14.7
022N-023N 051W-050W 100yr	1	5	4	1	1	0	2	1	0	4	6	10	12.4
50yr	1	3	2	1	0	0	2	1	0	3	4	7	14.1
022N-023N 050W-049W 100yr	0	5	4	1	2	3	0	0	0	5	5	10	12.9
50yr	0	3	2	1	1	3	0	0	0	4	3	7	14.6
022N-023N 049W-048W 100yr	0	2	2	0	4	1	0	0	0	5	2	7	12.4
50yr	0	1	1	0	3	1	0	0	0	4	1	5	11.8
022N-023N 048W-047W 100yr	1	2	1	1	1	0	0	0	0	1	3	4	13.0
50yr	1	1	1	0	1	0	0	0	0	1	2	3	11.8
022N-023N 047W-046W 100yr	2	4	2	2	0	0	0	0	0	0	6	6	12.3
50yr	2	2	2	0	0	0	0	0	0	0	4	4	11.7
022N-023N 046W-045W 100yr	1	4	3	1	1	0	0	0	0	1	5	6	13.1
50yr	1	2	1	1	1	0	0	0	0	1	3	4	12.2
022N-023N 045W-044W 100yr	2	5	3	2	1	0	0	0	0	1	7	8	12.1
50yr	2	3	1	2	1	0	0	0	0	1	5	6	11.6
022N-023N 044W-043W 100yr	2	6	4	2	2	0	0	0	0	2	8	10	11.0
50yr	2	4	2	2	2	0	0	0	0	2	6	8	11.6
022N-023N 043W-042W 100yr	1	2	2	0	2	0	0	0	0	2	3	5	10.0
50yr	1	1	1	0	2	0	0	0	0	2	2	4	10.7
022N-023N 042W-041W 100yr	0	2	2	0	4	0	0	0	0	4	2	6	12.3

Grid Cell	TD	TS	G	S	S1	S2	S3	S4	S5	H	<H	All	Spd
50yr	0	1	1	0	4	0	0	0	0	4	1	5	13.1
022N-023N 041W-040W 100yr	0	2	2	0	3	0	0	0	0	3	2	5	12.3
50yr	0	1	1	0	3	0	0	0	0	3	1	4	11.9
022N-023N 040W-039W 100yr	0	2	2	0	1	0	0	0	0	1	2	3	11.8
50yr	0	1	1	0	1	0	0	0	0	1	1	2	10.7
022N-023N 039W-038W 100yr	1	2	2	0	2	0	0	0	0	2	3	5	14.1
50yr	1	2	2	0	2	0	0	0	0	2	3	5	14.1
022N-023N 038W-037W 100yr	0	3	2	1	0	0	0	0	0	0	3	3	15.9
50yr	0	3	2	1	0	0	0	0	0	0	3	3	15.9
022N-023N 037W-036W 100yr	0	3	2	1	0	0	0	0	0	0	3	3	17.1
50yr	0	3	2	1	0	0	0	0	0	0	3	3	17.1
022N-023N 036W-035W 100yr	0	1	1	0	0	0	0	0	0	0	1	1	15.2
50yr	0	1	1	0	0	0	0	0	0	0	1	1	15.2
022N-023N 035W-034W 100yr	0	1	1	0	0	0	0	0	0	0	1	1	16.5
50yr	0	1	1	0	0	0	0	0	0	0	1	1	16.5
022N-023N 034W-033W 100yr	0	1	1	0	0	0	0	0	0	0	1	1	17.6
50yr	0	1	1	0	0	0	0	0	0	0	1	1	17.6
022N-023N 032W-031W 100yr	0	1	1	0	0	0	0	0	0	0	1	1	8.8
50yr	0	0	0	0	0	0	0	0	0	0	0	0	0.0
022N-023N 030W-029W 100yr	1	1	1	0	0	0	0	0	0	0	2	2	12.7
50yr	1	1	1	0	0	0	0	0	0	0	2	2	12.7
022N-023N 029W-028W 100yr	1	0	0	0	0	0	0	0	0	0	1	1	11.6
50yr	1	0	0	0	0	0	0	0	0	0	1	1	11.6
022N-023N 028W-027W 100yr	1	0	0	0	0	0	0	0	0	0	1	1	10.3
50yr	1	0	0	0	0	0	0	0	0	0	1	1	10.3
022N-023N 024W-023W 100yr	0	1	1	0	0	0	0	0	0	0	1	1	18.7
50yr	0	1	1	0	0	0	0	0	0	0	1	1	18.7
022N-023N 023W-022W 100yr	0	1	0	1	0	0	0	0	0	0	1	1	13.4
50yr	0	1	0	1	0	0	0	0	0	0	1	1	13.4

023°N to 024°N

023N-024N 110W-109W 100yr	1	0	0	0	0	0	0	0	0	0	1	1	3.4
50yr	1	0	0	0	0	0	0	0	0	0	1	1	3.4
023N-024N 109W-108W 100yr	1	0	0	0	0	0	0	0	0	0	1	1	4.5
50yr	1	0	0	0	0	0	0	0	0	0	1	1	4.5
023N-024N 108W-107W 100yr	1	0	0	0	0	0	0	0	0	0	1	1	5.7
50yr	1	0	0	0	0	0	0	0	0	0	1	1	5.7
023N-024N 102W-101W 100yr	1	0	0	0	0	0	0	0	0	0	1	1	9.6
50yr	1	0	0	0	0	0	0	0	0	0	1	1	9.6
023N-024N 101W-100W 100yr	0	1	1	0	0	0	0	0	0	0	1	1	9.7
50yr	0	1	1	0	0	0	0	0	0	0	1	1	9.7
023N-024N 100W-099W 100yr	1	1	1	0	2	0	0	1	0	3	2	5	11.5
50yr	1	0	0	0	2	0	0	1	0	3	1	4	12.0
023N-024N 099W-098W 100yr	1	6	2	4	2	0	1	0	1	4	7	11	10.6
50yr	0	1	0	1	1	0	1	0	1	3	1	4	9.2
023N-024N 098W-097W 100yr	0	7	5	2	4	0	2	2	1	9	7	16	8.7

Grid Cell	TD	TS	G	S	S1	S2	S3	S4	S5	H	<H	All	Spd
50yr	0	3	1	2	1	0	2	2	1	6	3	9	6.6
023N-024N 097W-096W 100yr	3	9	7	2	6	2	1	3	0	12	12	24	8.5
50yr	3	5	3	2	1	1	1	3	0	6	8	14	7.8
023N-024N 096W-095W 100yr	5	11	9	2	7	4	0	3	0	14	16	30	9.0
50yr	5	6	5	1	3	1	0	3	0	7	11	18	9.0
023N-024N 095W-094W 100yr	3	10	8	2	4	3	1	0	0	8	13	21	10.1
50yr	3	4	3	1	2	1	1	0	0	4	7	11	10.1
023N-024N 094W-093W 100yr	1	18	12	6	3	1	0	0	0	4	19	23	10.3
50yr	1	6	3	3	2	0	0	0	0	2	7	9	9.3
023N-024N 093W-092W 100yr	1	12	9	3	3	1	2	1	0	7	13	20	10.2
50yr	1	4	3	1	1	0	0	1	0	2	5	7	10.3
023N-024N 092W-091W 100yr	5	12	9	3	2	3	2	1	0	8	17	25	10.5
50yr	5	2	1	1	1	1	0	1	0	3	7	10	10.4
023N-024N 091W-090W 100yr	4	16	12	4	2	3	4	1	0	10	20	30	10.5
50yr	4	5	2	3	2	2	1	1	0	6	9	15	10.6
023N-024N 090W-089W 100yr	3	15	9	6	2	4	3	1	0	10	18	28	9.8
50yr	3	5	3	2	1	1	1	1	0	4	8	12	9.3
023N-024N 089W-088W 100yr	3	14	9	5	4	4	2	0	0	10	17	27	10.3
50yr	3	5	3	2	1	1	1	0	0	3	8	11	11.2
023N-024N 088W-087W 100yr	3	12	9	3	4	2	3	0	0	9	15	24	10.1
50yr	3	7	4	3	0	1	1	0	0	2	10	12	10.3
023N-024N 087W-086W 100yr	6	19	10	9	1	6	3	2	0	12	25	37	10.0
50yr	6	11	3	8	0	1	1	1	0	3	17	20	9.8
023N-024N 086W-085W 100yr	4	15	8	7	1	5	1	2	0	9	19	28	10.2
50yr	4	8	3	5	1	1	0	1	0	3	12	15	10.7
023N-024N 085W-084W 100yr	1	15	11	4	3	3	2	0	0	8	16	24	11.2
50yr	1	7	3	4	1	1	0	0	0	2	8	10	13.2
023N-024N 084W-083W 100yr	3	15	10	5	4	3	7	0	0	14	18	32	12.3
50yr	3	6	3	3	3	1	1	0	0	5	9	14	13.0
023N-024N 083W-082W 100yr	3	8	5	3	5	3	4	2	0	14	11	25	13.1
50yr	2	3	2	1	3	1	1	0	0	5	5	10	14.1
023N-024N 082W-081W 100yr	3	6	5	1	1	4	3	1	0	9	9	18	12.8
50yr	2	3	2	1	0	2	0	0	0	2	5	7	12.7
023N-024N 081W-080W 100yr	3	9	8	1	1	2	3	0	0	6	12	18	12.0
50yr	3	3	3	0	1	1	1	0	0	3	6	9	9.4
023N-024N 080W-079W 100yr	2	14	10	4	4	1	3	1	0	9	16	25	10.6
50yr	2	3	2	1	3	1	0	1	0	5	5	10	10.0
023N-024N 079W-078W 100yr	2	10	7	3	3	1	4	1	0	9	12	21	11.3
50yr	2	4	2	2	0	1	0	1	0	2	6	8	10.7
023N-024N 078W-077W 100yr	3	13	10	3	5	1	2	0	0	8	16	24	12.8
50yr	3	4	3	1	1	1	0	0	0	2	7	9	11.1
023N-024N 077W-076W 100yr	2	13	10	3	4	1	3	1	0	9	15	24	12.3
50yr	1	3	2	1	1	1	0	0	0	2	4	6	12.0
023N-024N 076W-075W 100yr	4	12	8	4	2	3	3	3	0	11	16	27	12.2
50yr	3	2	1	1	1	1	0	0	0	2	5	7	11.7
023N-024N 075W-074W 100yr	6	18	13	5	3	4	2	4	0	13	24	37	12.6
50yr	6	4	2	2	1	2	0	0	0	3	10	13	13.3
023N-024N 074W-073W 100yr	6	18	11	7	6	4	1	4	0	15	24	39	12.0

Grid Cell	TD	TS	G	S	S1	S2	S3	S4	S5	H	<H	All	Spd
50yr	6	6	3	3	3	2	1	0	0	6	12	18	12.5
023N-024N 073W-072W 100yr	5	17	11	6	4	4	1	3	0	12	22	34	12.4
50yr	5	5	2	3	2	3	0	1	0	6	10	16	11.3
023N-024N 072W-071W 100yr	5	17	15	2	3	3	2	5	0	13	22	35	13.2
50yr	5	6	5	1	1	2	2	2	0	7	11	18	11.2
023N-024N 071W-070W 100yr	4	10	7	3	3	4	4	5	0	16	14	30	12.3
50yr	4	3	1	2	0	1	4	2	0	7	7	14	10.0
023N-024N 070W-069W 100yr	1	9	4	5	3	6	1	4	0	14	10	24	12.8
50yr	1	5	2	3	1	3	1	2	0	7	6	13	13.2
023N-024N 069W-068W 100yr	1	8	5	3	5	3	1	4	1	14	9	23	11.9
50yr	1	5	3	2	4	2	1	2	0	9	6	15	12.7
023N-024N 068W-067W 100yr	4	9	6	3	9	3	2	1	1	16	13	29	11.9
50yr	4	4	3	1	5	0	2	1	0	8	8	16	13.5
023N-024N 067W-066W 100yr	4	10	6	4	7	1	3	0	1	12	14	26	12.3
50yr	4	4	3	1	4	0	2	0	1	7	8	15	12.8
023N-024N 066W-065W 100yr	2	9	5	4	7	0	1	0	1	9	11	20	13.0
50yr	2	5	3	2	3	0	0	0	1	4	7	11	12.5
023N-024N 065W-064W 100yr	1	9	5	4	7	1	3	1	0	12	10	22	13.4
50yr	1	5	2	3	3	1	1	1	0	6	6	12	12.3
023N-024N 064W-063W 100yr	2	6	6	0	5	2	3	3	0	13	8	21	12.7
50yr	2	1	1	0	3	1	1	3	0	8	3	11	12.8
023N-024N 063W-062W 100yr	0	7	6	1	5	2	5	2	0	14	7	21	11.2
50yr	0	3	3	0	3	0	3	2	0	8	3	11	11.7
023N-024N 062W-061W 100yr	0	4	3	1	5	4	5	0	0	14	4	18	9.9
50yr	0	1	1	0	4	1	3	0	0	8	1	9	10.1
023N-024N 061W-060W 100yr	2	6	3	3	3	2	3	1	0	9	8	17	11.7
50yr	2	1	0	1	2	0	2	1	0	5	3	8	12.6
023N-024N 060W-059W 100yr	3	5	3	2	4	1	3	2	0	10	8	18	10.9
50yr	3	0	0	0	2	1	2	1	0	6	3	9	12.3
023N-024N 059W-058W 100yr	5	6	2	4	5	0	1	2	0	8	11	19	11.6
50yr	5	2	1	1	4	0	1	1	0	6	7	13	12.3
023N-024N 058W-057W 100yr	5	4	2	2	5	2	2	0	0	9	9	18	12.8
50yr	5	3	2	1	3	1	1	0	0	5	8	13	12.9
023N-024N 057W-056W 100yr	3	7	6	1	3	1	0	0	0	4	10	14	13.1
50yr	3	6	6	0	1	0	0	0	0	1	9	10	13.4
023N-024N 056W-055W 100yr	0	8	6	2	1	0	0	0	0	1	8	9	13.9
50yr	0	7	6	1	1	0	0	0	0	1	7	8	13.5
023N-024N 055W-054W 100yr	3	3	2	1	1	1	1	0	0	3	6	9	15.6
50yr	3	2	2	0	0	0	1	0	0	1	5	6	15.6
023N-024N 054W-053W 100yr	1	8	5	3	2	2	1	0	0	5	9	14	17.7
50yr	1	6	4	2	0	0	1	0	0	1	7	8	17.7
023N-024N 053W-052W 100yr	1	8	6	2	2	2	2	0	0	6	9	15	13.4
50yr	1	7	5	2	0	1	1	0	0	2	8	10	12.7
023N-024N 052W-051W 100yr	0	8	5	3	0	1	3	0	0	4	8	12	15.0
50yr	0	6	3	3	0	0	3	0	0	3	6	9	15.6
023N-024N 051W-050W 100yr	0	4	3	1	2	1	2	0	0	5	4	9	13.9
50yr	0	3	2	1	1	0	2	0	0	3	3	6	14.6
023N-024N 050W-049W 100yr	0	2	2	0	2	2	0	0	0	4	2	6	12.9

Grid Cell	TD	TS	G	S	S1	S2	S3	S4	S5	H	<H	All	Spd
50yr	0	2	2	0	1	2	0	0	0	3	2	5	11.7
023N-024N 049W-048W 100yr	0	4	4	0	3	0	0	0	0	3	4	7	11.3
50yr	0	4	4	0	2	0	0	0	0	2	4	6	10.0
023N-024N 048W-047W 100yr	0	5	5	0	0	0	0	0	0	0	5	5	10.4
50yr	0	4	4	0	0	0	0	0	0	0	4	4	9.6
023N-024N 047W-046W 100yr	1	4	2	2	1	0	0	0	0	1	5	6	12.0
50yr	1	2	1	1	1	0	0	0	0	1	3	4	11.1
023N-024N 046W-045W 100yr	1	4	3	1	1	0	0	0	0	1	5	6	11.5
50yr	1	3	2	1	1	0	0	0	0	1	4	5	11.0
023N-024N 045W-044W 100yr	1	5	5	0	2	0	0	0	0	2	6	8	11.2
50yr	1	3	3	0	2	0	0	0	0	2	4	6	11.5
023N-024N 044W-043W 100yr	2	3	2	1	1	0	0	0	0	1	5	6	12.0
50yr	2	1	0	1	1	0	0	0	0	1	3	4	13.5
023N-024N 043W-042W 100yr	0	2	1	1	0	0	0	0	0	0	2	2	19.7
50yr	0	2	1	1	0	0	0	0	0	0	2	2	19.7
023N-024N 042W-041W 100yr	0	2	2	0	2	0	0	0	0	2	2	4	14.2
50yr	0	1	1	0	2	0	0	0	0	2	1	3	14.6
023N-024N 041W-040W 100yr	0	2	2	0	2	0	0	0	0	2	2	4	14.1
50yr	0	1	1	0	2	0	0	0	0	2	1	3	14.2
023N-024N 040W-039W 100yr	1	1	1	0	1	0	0	0	0	1	2	3	16.7
50yr	1	1	1	0	1	0	0	0	0	1	2	3	16.7
023N-024N 039W-038W 100yr	1	2	2	0	0	1	0	0	0	1	3	4	15.1
50yr	1	2	2	0	0	1	0	0	0	1	3	4	15.1
023N-024N 038W-037W 100yr	0	2	0	2	0	0	0	0	0	0	2	2	18.1
50yr	0	2	0	2	0	0	0	0	0	0	2	2	18.1
023N-024N 037W-036W 100yr	0	2	1	1	0	0	0	0	0	0	2	2	13.9
50yr	0	2	1	1	0	0	0	0	0	0	2	2	13.9
023N-024N 032W-031W 100yr	0	1	0	1	0	0	0	0	0	0	1	1	8.2
50yr	0	0	0	0	0	0	0	0	0	0	0	0	0.0
023N-024N 031W-030W 100yr	1	0	0	0	0	0	0	0	0	0	1	1	14.3
50yr	1	0	0	0	0	0	0	0	0	0	1	1	14.3
023N-024N 030W-029W 100yr	1	1	1	0	0	0	0	0	0	0	2	2	13.6
50yr	1	1	1	0	0	0	0	0	0	0	2	2	13.6
023N-024N 025W-024W 100yr	0	1	1	0	0	0	0	0	0	0	1	1	18.9
50yr	0	1	1	0	0	0	0	0	0	0	1	1	18.9
023N-024N 024W-023W 100yr	0	1	1	0	0	0	0	0	0	0	1	1	18.9
50yr	0	1	1	0	0	0	0	0	0	0	1	1	18.9
023N-024N 023W-022W 100yr	0	1	1	0	0	0	0	0	0	0	1	1	11.0
50yr	0	1	1	0	0	0	0	0	0	0	1	1	11.0

024°N to 025°N

Grid Cell	TD	TS	G	S	S1	S2	S3	S4	S5	H	<H	All	Spd
024N-025N 110W-109W 100yr	1	0	0	0	0	0	0	0	0	0	1	1	2.5
50yr	1	0	0	0	0	0	0	0	0	0	1	1	2.5
024N-025N 109W-108W 100yr	1	0	0	0	0	0	0	0	0	0	1	1	2.9
50yr	1	0	0	0	0	0	0	0	0	0	1	1	2.9
024N-025N 101W-100W 100yr	0	2	1	1	0	0	0	0	0	0	2	2	10.5

Grid Cell		TD	TS	G	S	S1	S2	S3	S4	S5	H	<H	All	Spd
	50yr	0	2	1	1	0	0	0	0	0	0	2	2	10.5
024N-025N 100W-099W	100yr	1	2	2	0	1	0	0	0	0	1	3	4	10.5
	50yr	1	1	1	0	1	0	0	0	0	1	2	3	10.4
024N-025N 099W-098W	100yr	0	7	5	2	0	1	1	1	0	3	7	10	10.3
	50yr	0	1	1	0	0	1	1	1	0	3	1	4	8.5
024N-025N 098W-097W	100yr	0	8	7	1	1	0	1	1	1	4	8	12	9.2
	50yr	0	3	3	0	1	0	1	1	1	4	3	7	9.2
024N-025N 097W-096W	100yr	1	11	10	1	3	2	1	0	2	8	12	20	9.4
	50yr	1	4	4	0	1	0	1	0	2	4	5	9	9.4
024N-025N 096W-095W	100yr	2	9	7	2	4	4	1	1	0	10	11	21	10.1
	50yr	2	1	1	0	2	0	1	1	0	4	3	7	11.4
024N-025N 095W-094W	100yr	2	7	6	1	3	2	1	0	1	7	9	16	12.0
	50yr	2	1	1	0	0	0	0	0	1	1	3	4	13.1
024N-025N 094W-093W	100yr	1	12	7	5	3	0	2	0	1	6	13	19	11.0
	50yr	1	3	1	2	1	0	0	0	1	2	4	6	8.9
024N-025N 093W-092W	100yr	2	14	12	2	2	1	3	0	1	7	16	23	10.4
	50yr	2	4	2	2	0	0	0	0	1	1	6	7	8.9
024N-025N 092W-091W	100yr	3	16	13	3	3	2	3	2	0	10	19	29	10.2
	50yr	3	4	3	1	1	0	1	2	0	4	7	11	9.6
024N-025N 091W-090W	100yr	6	13	9	4	6	2	3	1	0	12	19	31	10.3
	50yr	6	5	3	2	2	0	3	1	0	6	11	17	10.1
024N-025N 090W-089W	100yr	4	11	5	6	5	4	3	1	0	13	15	28	10.0
	50yr	4	5	2	3	1	1	1	0	0	3	9	12	10.6
024N-025N 089W-088W	100yr	3	11	7	4	3	2	4	0	0	9	14	23	10.4
	50yr	3	4	1	3	0	0	1	0	0	1	7	8	13.1
024N-025N 088W-087W	100yr	6	11	10	1	2	2	6	1	0	11	17	28	9.9
	50yr	5	2	2	0	0	1	2	1	0	4	7	11	10.1
024N-025N 087W-086W	100yr	2	19	12	7	3	3	3	1	0	10	21	31	9.2
	50yr	2	7	1	6	3	0	0	1	0	4	9	13	9.6
024N-025N 086W-085W	100yr	2	17	9	8	2	3	2	1	0	8	19	27	9.9
	50yr	2	7	2	5	2	2	0	0	0	4	9	13	11.0
024N-025N 085W-084W	100yr	2	18	13	5	3	6	0	0	0	9	20	29	10.5
	50yr	2	5	3	2	3	3	0	0	0	6	7	13	10.9
024N-025N 084W-083W	100yr	4	12	9	3	5	4	2	1	0	12	16	28	10.2
	50yr	4	3	1	2	4	3	0	0	0	7	7	14	10.2
024N-025N 083W-082W	100yr	5	11	9	2	7	1	4	2	0	14	16	30	11.4
	50yr	5	4	4	0	3	1	2	0	0	6	9	15	10.6
024N-025N 082W-081W	100yr	4	10	9	1	6	1	4	4	0	15	14	29	11.0
	50yr	3	6	6	0	3	1	0	1	0	5	9	14	10.5
024N-025N 081W-080W	100yr	3	7	7	0	4	2	5	1	1	13	10	23	11.4
	50yr	3	4	4	0	2	0	0	1	0	3	7	10	10.3
024N-025N 080W-079W	100yr	4	10	7	3	2	2	4	4	0	12	14	26	10.6
	50yr	4	3	3	0	1	2	0	1	0	4	7	11	10.1
024N-025N 079W-078W	100yr	4	8	6	2	3	2	2	3	0	10	12	22	10.2
	50yr	4	2	1	1	2	1	0	0	0	3	6	9	10.6
024N-025N 078W-077W	100yr	4	13	11	2	3	3	1	4	0	11	17	28	12.7
	50yr	4	3	2	1	1	1	0	0	0	2	7	9	11.5
024N-025N 077W-076W	100yr	3	13	12	1	5	2	2	4	0	13	16	29	11.2

Grid Cell	TD	TS	G	S	S1	S2	S3	S4	S5	H	<H	All	Spd
50yr	3	2	1	1	1	1	0	0	0	2	5	7	9.9
024N-025N 076W-075W 100yr	4	13	11	2	3	3	2	5	0	13	17	30	10.4
50yr	4	3	2	1	1	1	1	1	0	4	7	11	9.8
024N-025N 075W-074W 100yr	4	17	13	4	6	5	3	4	0	18	21	39	12.5
50yr	4	2	2	0	4	3	2	1	0	10	6	16	12.6
024N-025N 074W-073W 100yr	2	17	12	5	3	5	3	3	0	14	19	33	13.7
50yr	2	3	3	0	3	3	2	1	0	9	5	14	13.7
024N-025N 073W-072W 100yr	0	15	9	6	1	1	2	2	1	7	15	22	13.4
50yr	0	5	4	1	0	1	2	1	0	4	5	9	13.1
024N-025N 072W-071W 100yr	3	13	8	5	5	2	4	2	1	14	16	30	12.2
50yr	3	6	2	4	3	1	4	1	0	9	9	18	11.1
024N-025N 071W-070W 100yr	4	12	9	3	2	5	3	3	0	13	16	29	13.5
50yr	4	4	2	2	2	3	3	2	0	10	8	18	12.9
024N-025N 070W-069W 100yr	4	12	9	3	9	5	2	2	0	18	16	34	12.0
50yr	4	3	2	1	6	4	0	2	0	12	7	19	12.3
024N-025N 069W-068W 100yr	8	10	7	3	10	6	1	2	1	20	18	38	10.9
50yr	8	4	2	2	5	1	1	1	0	8	12	20	12.2
024N-025N 068W-067W 100yr	7	6	4	2	6	4	1	0	1	12	13	25	11.8
50yr	7	1	1	0	3	0	1	0	1	5	8	13	13.3
024N-025N 067W-066W 100yr	1	5	3	2	4	1	2	1	1	9	6	15	11.6
50yr	1	2	1	1	1	0	1	1	1	4	3	7	11.9
024N-025N 066W-065W 100yr	1	9	6	3	4	0	5	1	1	11	10	21	13.2
50yr	1	3	2	1	1	0	2	1	1	5	4	9	11.9
024N-025N 065W-064W 100yr	2	9	3	6	3	2	3	2	0	10	11	21	12.5
50yr	2	5	1	4	2	1	1	2	0	6	7	13	10.8
024N-025N 064W-063W 100yr	0	8	4	4	3	5	4	1	0	13	8	21	11.6
50yr	0	3	2	1	2	2	2	1	0	7	3	10	11.4
024N-025N 063W-062W 100yr	0	6	3	3	3	6	5	1	0	15	6	21	11.3
50yr	0	2	1	1	2	1	3	1	0	7	2	9	12.5
024N-025N 062W-061W 100yr	0	6	6	0	4	3	4	2	0	13	6	19	11.8
50yr	0	3	3	0	2	2	3	2	0	9	3	12	11.9
024N-025N 061W-060W 100yr	3	5	5	0	3	1	1	1	0	6	8	14	9.6
50yr	3	2	2	0	2	1	1	1	0	5	5	10	10.8
024N-025N 060W-059W 100yr	4	4	2	2	2	1	1	3	0	7	8	15	11.3
50yr	4	1	0	1	1	0	1	2	0	4	5	9	11.6
024N-025N 059W-058W 100yr	5	3	1	2	3	3	0	2	0	8	8	16	11.6
50yr	5	2	1	1	1	1	0	1	0	3	7	10	9.5
024N-025N 058W-057W 100yr	3	2	1	1	5	2	0	0	0	7	5	12	12.5
50yr	3	2	1	1	2	1	0	0	0	3	5	8	11.1
024N-025N 057W-056W 100yr	1	3	3	0	2	0	2	0	0	4	4	8	11.3
50yr	1	3	3	0	2	0	2	0	0	4	4	8	11.3
024N-025N 056W-055W 100yr	2	6	4	2	4	2	1	0	0	7	8	15	13.1
50yr	2	3	3	0	3	0	1	0	0	4	5	9	12.9
024N-025N 055W-054W 100yr	2	6	4	2	3	1	1	0	0	5	8	13	13.7
50yr	2	2	2	0	2	0	1	0	0	3	4	7	14.1
024N-025N 054W-053W 100yr	1	9	7	2	1	1	1	0	0	3	10	13	13.5
50yr	1	4	4	0	1	0	0	0	0	1	5	6	14.6
024N-025N 053W-052W 100yr	1	8	6	2	2	2	2	0	0	6	9	15	14.9

Grid Cell	TD	TS	G	S	S1	S2	S3	S4	S5	H	<H	All	Spd
50yr	1	3	2	1	1	1	1	0	0	3	4	7	14.8
024N-025N 052W-051W 100yr	2	8	4	4	2	2	2	0	0	6	10	16	15.6
50yr	2	5	2	3	1	0	2	0	0	3	7	10	16.0
024N-025N 051W-050W 100yr	0	7	5	2	3	2	0	0	0	5	7	12	13.9
50yr	0	5	3	2	2	1	0	0	0	3	5	8	16.6
024N-025N 050W-049W 100yr	1	7	7	0	1	2	0	0	0	3	8	11	13.3
50yr	1	5	5	0	1	2	0	0	0	3	6	9	14.3
024N-025N 049W-048W 100yr	0	7	7	0	3	0	0	0	0	3	7	10	12.8
50yr	0	4	4	0	3	0	0	0	0	3	4	7	13.6
024N-025N 048W-047W 100yr	1	5	4	1	1	0	0	0	0	1	6	7	14.8
50yr	1	3	2	1	1	0	0	0	0	1	4	5	16.0
024N-025N 047W-046W 100yr	0	2	0	2	1	0	0	0	0	1	2	3	15.7
50yr	0	1	0	1	1	0	0	0	0	1	1	2	15.4
024N-025N 046W-045W 100yr	1	1	1	0	1	0	0	0	0	1	2	3	12.0
50yr	1	1	1	0	1	0	0	0	0	1	2	3	12.0
024N-025N 045W-044W 100yr	1	4	4	0	1	0	0	0	0	1	5	6	10.9
50yr	1	2	2	0	1	0	0	0	0	1	3	4	12.5
024N-025N 044W-043W 100yr	0	1	1	0	0	0	0	0	0	0	1	1	7.6
50yr	0	0	0	0	0	0	0	0	0	0	0	0	0.0
024N-025N 043W-042W 100yr	0	3	1	2	1	0	0	0	0	1	3	4	16.4
50yr	0	2	0	2	1	0	0	0	0	1	2	3	17.8
024N-025N 042W-041W 100yr	0	2	1	1	2	0	0	0	0	2	2	4	18.2
50yr	0	1	0	1	2	0	0	0	0	2	1	3	19.9
024N-025N 041W-040W 100yr	0	2	1	1	1	0	0	0	0	1	2	3	13.6
50yr	0	2	1	1	1	0	0	0	0	1	2	3	13.6
024N-025N 040W-039W 100yr	0	3	2	1	1	1	0	0	0	2	3	5	15.7
50yr	0	3	2	1	1	1	0	0	0	2	3	5	15.7
024N-025N 039W-038W 100yr	0	2	1	1	0	1	0	0	0	1	2	3	14.0
50yr	0	2	1	1	0	1	0	0	0	1	2	3	14.0
024N-025N 038W-037W 100yr	0	2	0	2	1	0	0	0	0	1	2	3	17.2
50yr	0	2	0	2	1	0	0	0	0	1	2	3	17.2
024N-025N 037W-036W 100yr	0	1	1	0	0	0	0	0	0	0	1	1	14.5
50yr	0	1	1	0	0	0	0	0	0	0	1	1	14.5
024N-025N 035W-034W 100yr	0	1	1	0	0	0	0	0	0	0	1	1	8.5
50yr	0	0	0	0	0	0	0	0	0	0	0	0	0.0
024N-025N 034W-033W 100yr	0	1	1	0	0	0	0	0	0	0	1	1	7.5
50yr	0	0	0	0	0	0	0	0	0	0	0	0	0.0
024N-025N 033W-032W 100yr	1	0	0	0	0	0	0	0	0	0	1	1	15.6
50yr	1	0	0	0	0	0	0	0	0	0	1	1	15.6
024N-025N 032W-031W 100yr	1	1	0	1	0	0	0	0	0	0	2	2	11.8
50yr	1	0	0	0	0	0	0	0	0	0	1	1	15.0
024N-025N 031W-030W 100yr	1	0	0	0	0	0	0	0	0	0	1	1	15.0
50yr	1	0	0	0	0	0	0	0	0	0	1	1	15.0
024N-025N 030W-029W 100yr	0	1	1	0	0	0	0	0	0	0	1	1	14.1
50yr	0	1	1	0	0	0	0	0	0	0	1	1	14.1
024N-025N 026W-025W 100yr	0	1	1	0	0	0	0	0	0	0	1	1	17.7
50yr	0	1	1	0	0	0	0	0	0	0	1	1	17.7
024N-025N 025W-024W 100yr	0	1	1	0	0	0	0	0	0	0	1	1	18.3

Grid Cell	TD	TS	G	S	S1	S2	S3	S4	S5	H	<H	All	Spd
50yr	0	1	1	0	0	0	0	0	0	0	1	1	18.3
024N-025N 024W-023W 100yr	1	0	0	0	0	0	0	0	0	0	1	1	11.0
50yr	1	0	0	0	0	0	0	0	0	0	1	1	11.0
024N-025N 023W-022W 100yr	0	1	1	0	0	0	0	0	0	0	1	1	11.0
50yr	0	1	1	0	0	0	0	0	0	0	1	1	11.0

025°N to 026°N

Grid Cell	TD	TS	G	S	S1	S2	S3	S4	S5	H	<H	All	Spd
025N-026N 104W-103W 100yr	1	0	0	0	0	0	0	0	0	0	1	1	14.9
50yr	1	0	0	0	0	0	0	0	0	0	1	1	14.9
025N-026N 103W-102W 100yr	1	0	0	0	0	0	0	0	0	0	1	1	13.2
50yr	1	0	0	0	0	0	0	0	0	0	1	1	13.2
025N-026N 102W-101W 100yr	0	1	1	0	0	0	0	0	0	0	1	1	13.3
50yr	0	1	1	0	0	0	0	0	0	0	1	1	13.3
025N-026N 101W-100W 100yr	2	1	0	1	0	0	0	0	0	0	3	3	8.4
50yr	2	1	0	1	0	0	0	0	0	0	3	3	8.4
025N-026N 100W-099W 100yr	2	3	2	1	1	0	0	0	0	1	5	6	8.5
50yr	2	1	1	0	0	0	0	0	0	0	3	3	7.7
025N-026N 099W-098W 100yr	1	7	5	2	4	0	0	0	0	4	8	12	11.3
50yr	1	2	1	1	2	0	0	0	0	2	3	5	10.3
025N-026N 098W-097W 100yr	1	6	6	0	6	0	1	0	1	8	7	15	9.2
50yr	1	2	2	0	2	0	1	0	1	4	3	7	9.3
025N-026N 097W-096W 100yr	2	7	6	1	4	3	1	0	2	10	9	19	9.3
50yr	2	3	2	1	1	0	0	0	2	3	5	8	8.9
025N-026N 096W-095W 100yr	0	13	9	4	1	2	3	1	1	8	13	21	10.1
50yr	0	4	2	2	0	0	1	1	1	3	4	7	9.4
025N-026N 095W-094W 100yr	2	12	9	3	2	2	1	0	1	6	14	20	10.4
50yr	2	3	1	2	0	1	0	0	1	2	5	7	8.3
025N-026N 094W-093W 100yr	3	11	7	4	2	3	3	0	0	8	14	22	9.7
50yr	3	4	2	2	0	2	1	0	0	3	7	10	9.6
025N-026N 093W-092W 100yr	4	19	12	7	4	2	4	0	0	10	23	33	9.5
50yr	4	7	2	5	1	0	1	0	0	2	11	13	9.7
025N-026N 092W-091W 100yr	3	20	11	9	4	5	3	1	0	13	23	36	10.2
50yr	3	8	3	5	1	1	1	1	0	4	11	15	10.2
025N-026N 091W-090W 100yr	6	18	11	7	4	5	4	1	0	14	24	38	11.7
50yr	6	9	5	4	1	1	1	0	0	3	15	18	11.3
025N-026N 090W-089W 100yr	7	17	9	8	5	3	5	1	0	14	24	38	10.4
50yr	7	5	2	3	2	1	1	0	0	4	12	16	11.3
025N-026N 089W-088W 100yr	4	14	8	6	3	3	4	0	0	10	18	28	10.2
50yr	4	5	2	3	0	1	0	0	0	1	9	10	11.6
025N-026N 088W-087W 100yr	7	11	7	4	1	2	4	1	1	9	18	27	9.7
50yr	6	3	2	1	0	1	1	0	1	3	9	12	9.4
025N-026N 087W-086W 100yr	3	15	8	7	3	0	4	0	0	7	18	25	11.7
50yr	3	5	2	3	2	0	2	0	0	4	8	12	14.1
025N-026N 086W-085W 100yr	5	14	10	4	5	2	2	3	0	12	19	31	11.5

Grid Cell		TD	TS	G	S	S1	S2	S3	S4	S5	H	<H	All	Spd
	50yr	5	4	2	2	3	1	2	1	0	7	9	16	13.6
025N-026N 085W-084W	100yr	4	18	12	6	4	2	1	3	0	10	22	32	10.6
	50yr	4	5	2	3	3	1	1	1	0	6	9	15	11.1
025N-026N 084W-083W	100yr	6	9	7	2	6	2	1	3	0	12	15	27	10.4
	50yr	6	3	1	2	3	1	1	1	0	6	9	15	10.8
025N-026N 083W-082W	100yr	2	12	7	5	3	3	6	1	0	13	14	27	11.3
	50yr	2	6	3	3	1	0	4	0	0	5	8	13	11.8
025N-026N 082W-081W	100yr	2	12	7	5	3	2	6	4	0	15	14	29	11.7
	50yr	2	6	5	1	1	0	2	2	0	5	8	13	13.0
025N-026N 081W-080W	100yr	5	6	4	2	9	5	5	5	0	24	11	35	12.0
	50yr	5	2	2	0	3	1	[illegible]	2	0	7	7	14	12.5
025N-026N 080W-079W	100yr	8	11	7	4	6	7	[illegible]	4	0	20	19	39	11.9
	50yr	7	4	3	1	3	1	1	1	0	6	11	17	11.1
025N-026N 079W-078W	100yr	7	13	10	3	4	2	3	6	0	15	20	35	11.3
	50yr	7	4	3	1	2	0	1	1	0	4	11	15	10.0
025N-026N 078W-077W	100yr	6	8	6	2	2	1	2	6	1	12	14	26	10.8
	50yr	6	2	1	1	1	0	1	1	0	3	8	11	9.6
025N-026N 077W-076W	100yr	4	13	11	2	5	2	3	2	1	13	17	30	10.7
	50yr	4	1	0	1	2	1	2	1	0	6	5	11	10.5
025N-026N 076W-075W	100yr	4	14	11	3	8	1	3	3	0	15	18	33	11.1
	50yr	4	4	2	2	2	1	2	1	0	6	8	14	10.0
025N-026N 075W-074W	100yr	3	15	11	4	7	3	1	2	0	13	18	31	11.3
	50yr	3	5	4	1	5	2	1	1	0	9	8	17	10.8
025N-026N 074W-073W	100yr	3	12	8	4	2	3	3	2	1	11	15	26	12.0
	50yr	3	5	3	2	2	2	2	0	0	6	8	14	11.0
025N-026N 073W-072W	100yr	1	12	9	3	1	3	6	1	1	12	13	25	12.4
	50yr	1	4	3	1	0	2	4	0	0	6	5	11	10.9
025N-026N 072W-071W	100yr	3	11	6	5	7	6	6	4	0	23	14	37	12.6
	50yr	3	6	3	3	5	3	4	3	0	15	9	24	12.5
025N-026N 071W-070W	100yr	5	10	9	1	9	7	3	2	0	21	15	36	14.6
	50yr	5	4	3	1	5	4	1	2	0	12	9	21	15.2
025N-026N 070W-069W	100yr	6	11	8	3	10	4	2	1	0	17	17	34	13.0
	50yr	6	3	2	1	5	3	0	1	0	9	9	18	13.9
025N-026N 069W-068W	100yr	8	9	5	4	7	5	2	1	1	16	17	33	13.0
	50yr	8	3	1	2	2	1	1	0	0	4	11	15	15.4
025N-026N 068W-067W	100yr	6	8	5	3	4	3	2	2	1	12	14	26	12.4
	50yr	6	4	2	2	1	0	1	1	1	4	10	14	13.2
025N-026N 067W-066W	100yr	2	9	6	3	2	3	3	2	0	10	11	21	12.7
	50yr	2	4	3	1	0	0	1	2	0	3	6	9	11.1
025N-026N 066W-065W	100yr	2	11	6	5	0	2	2	2	0	6	13	19	12.9
	50yr	2	4	2	2	0	0	0	1	0	1	6	7	11.4
025N-026N 065W-064W	100yr	2	8	5	3	2	2	4	1	0	9	10	19	11.3
	50yr	2	2	0	2	2	0	2	1	0	5	4	9	11.0
025N-026N 064W-063W	100yr	1	7	5	2	4	2	5	0	0	11	8	19	11.2
	50yr	1	3	1	2	2	0	2	0	0	4	4	8	9.3
025N-026N 063W-062W	100yr	0	7	4	3	2	3	1	0	0	6	7	13	11.6
	50yr	0	3	2	1	1	1	0	0	0	2	3	5	10.5
025N-026N 062W-061W	100yr	1	6	5	1	0	1	2	2	0	5	7	12	11.8

Grid Cell	TD	TS	G	S	S1	S2	S3	S4	S5	H	<H	All	Spd
50yr	1	2	1	1	0	0	2	2	0	4	3	7	12.5
025N-026N 061W-060W 100yr	3	5	5	0	1	4	1	2	0	8	8	16	11.2
50yr	3	2	2	0	0	2	1	2	0	5	5	10	11.8
025N-026N 060W-059W 100yr	3	5	3	2	2	2	0	3	0	7	8	15	11.2
50yr	3	2	1	1	0	1	0	2	0	3	5	8	10.6
025N-026N 059W-058W 100yr	4	5	4	1	3	3	0	0	0	6	9	15	11.2
50yr	4	4	3	1	1	1	0	0	0	2	8	10	9.4
025N-026N 058W-057W 100yr	2	7	5	2	3	3	0	0	0	6	9	15	12.0
50yr	2	6	4	2	2	2	0	0	0	4	8	12	10.6
025N-026N 057W-056W 100yr	2	5	4	1	5	2	2	0	0	9	7	16	11.8
50yr	2	3	2	1	2	0	2	0	0	4	5	9	11.8
025N-026N 056W-055W 100yr	2	5	3	2	5	2	0	0	0	7	7	14	13.3
50yr	2	1	1	0	3	0	0	0	0	3	3	6	13.7
025N-026N 055W-054W 100yr	1	7	6	1	3	2	1	0	0	6	8	14	13.0
50yr	1	3	3	0	2	1	0	0	0	3	4	7	14.2
025N-026N 054W-053W 100yr	0	4	4	0	5	1	2	0	0	8	4	12	15.3
50yr	0	2	2	0	3	0	1	0	0	4	2	6	17.4
025N-026N 053W-052W 100yr	0	3	3	0	3	1	3	1	0	8	3	11	14.4
50yr	0	1	1	0	2	0	3	1	0	6	1	7	13.8
025N-026N 052W-051W 100yr	2	0	0	0	2	2	2	0	0	6	2	8	13.8
50yr	2	0	0	0	1	0	2	0	0	3	2	5	13.6
025N-026N 051W-050W 100yr	2	2	1	1	2	2	0	0	0	4	4	8	18.8
50yr	2	2	1	1	2	1	0	0	0	3	4	7	18.0
025N-026N 050W-049W 100yr	1	2	2	0	2	0	0	0	0	2	3	5	16.2
50yr	1	1	1	0	2	0	0	0	0	2	2	4	16.9
025N-026N 049W-048W 100yr	0	3	3	0	4	0	0	0	0	4	3	7	13.9
50yr	0	1	1	0	4	0	0	0	0	4	1	5	14.6
025N-026N 048W-047W 100yr	1	2	1	1	2	0	0	0	0	2	3	5	14.4
50yr	1	1	0	1	2	0	0	0	0	2	2	4	15.8
025N-026N 047W-046W 100yr	1	3	2	1	0	0	0	0	0	0	4	4	12.7
50yr	1	1	1	0	0	0	0	0	0	0	2	2	10.6
025N-026N 046W-045W 100yr	2	2	2	0	1	0	0	0	0	1	4	5	10.7
50yr	2	1	1	0	1	0	0	0	0	1	3	4	12.1
025N-026N 045W-044W 100yr	1	4	3	1	1	0	0	0	0	1	5	6	10.7
50yr	1	2	1	1	1	0	0	0	0	1	3	4	13.0
025N-026N 044W-043W 100yr	1	4	2	2	0	0	0	0	0	0	5	5	13.0
50yr	1	3	1	2	0	0	0	0	0	0	4	4	13.2
025N-026N 043W-042W 100yr	0	3	2	1	0	0	0	0	0	0	3	3	13.0
50yr	0	2	1	1	0	0	0	0	0	0	2	2	13.4
025N-026N 042W-041W 100yr	1	4	1	3	2	0	0	0	0	2	5	7	17.0
50yr	1	4	1	3	2	0	0	0	0	2	5	7	17.0
025N-026N 041W-040W 100yr	1	6	2	4	0	0	0	0	0	0	7	7	17.3
50yr	1	6	2	4	0	0	0	0	0	0	7	7	17.3
025N-026N 040W-039W 100yr	1	4	2	2	0	1	0	0	0	1	5	6	14.0
50yr	1	4	2	2	0	1	0	0	0	1	5	6	14.0
025N-026N 039W-038W 100yr	1	1	1	0	1	0	0	0	0	1	2	3	10.4
50yr	1	1	1	0	1	0	0	0	0	1	2	3	10.4
025N-026N 038W-037W 100yr	0	2	1	1	1	0	0	0	0	1	2	3	11.9

Grid Cell	TD	TS	G	S	S1	S2	S3	S4	S5	H	<H	All	Spd
50yr	0	2	1	1	1	0	0	0	0	1	2	3	11.9
025N-026N 037W-036W 100yr	0	2	1	1	0	0	0	0	0	0	2	2	12.1
50yr	0	1	1	0	0	0	0	0	0	0	1	1	8.8
025N-026N 036W-035W 100yr	0	2	1	1	0	0	0	0	0	0	2	2	8.5
50yr	0	1	0	1	0	0	0	0	0	0	1	1	8.5
025N-026N 035W-034W 100yr	0	2	1	1	0	0	0	0	0	0	2	2	8.3
50yr	0	1	0	1	0	0	0	0	0	0	1	1	8.2
025N-026N 034W-033W 100yr	1	0	0	0	0	0	0	0	0	0	1	1	18.8
50yr	1	0	0	0	0	0	0	0	0	0	1	1	18.8
025N-026N 033W-032W 100yr	1	0	0	0	0	0	0	0	0	0	1	1	17.2
50yr	1	0	0	0	0	0	0	0	0	0	1	1	17.2
025N-026N 032W-031W 100yr	0	1	0	1	0	0	0	0	0	0	1	1	9.8
50yr	0	0	0	0	0	0	0	0	0	0	0	0	0.0
025N-026N 030W-029W 100yr	0	1	1	0	0	0	0	0	0	0	1	1	14.8
50yr	0	1	1	0	0	0	0	0	0	0	1	1	14.8
025N-026N 027W-026W 100yr	0	1	1	0	0	0	0	0	0	0	1	1	17.4
50yr	0	1	1	0	0	0	0	0	0	0	1	1	17.4
025N-026N 026W-025W 100yr	0	1	1	0	0	0	0	0	0	0	1	1	17.4
50yr	0	1	1	0	0	0	0	0	0	0	1	1	17.4
025N-026N 024W-023W 100yr	1	0	0	0	0	0	0	0	0	0	1	1	11.0
50yr	1	0	0	0	0	0	0	0	0	0	1	1	11.0
025N-026N 023W-022W 100yr	1	0	0	0	0	0	0	0	0	0	1	1	11.0
50yr	1	0	0	0	0	0	0	0	0	0	1	1	11.0

026°N to 027°N

Grid Cell	TD	TS	G	S	S1	S2	S3	S4	S5	H	<H	All	Spd
026N-027N 104W-103W 100yr	1	0	0	0	0	0	0	0	0	0	1	1	14.9
50yr	1	0	0	0	0	0	0	0	0	0	1	1	14.9
026N-027N 101W-100W 100yr	1	1	1	0	0	0	0	0	0	0	2	2	4.9
50yr	1	1	1	0	0	0	0	0	0	0	2	2	4.9
026N-027N 100W-099W 100yr	0	6	5	1	1	0	0	0	0	1	6	7	12.3
50yr	0	4	3	1	0	0	0	0	0	0	4	4	9.3
026N-027N 099W-098W 100yr	1	5	5	0	3	0	1	0	0	4	6	10	12.5
50yr	0	1	1	0	1	0	1	0	0	2	1	3	13.0
026N-027N 098W-097W 100yr	0	8	8	0	4	1	2	1	1	9	8	17	8.7
50yr	0	3	3	0	0	0	1	1	1	3	3	6	7.6
026N-027N 097W-096W 100yr	1	5	5	0	6	3	2	1	0	12	6	18	8.7
50yr	1	3	3	0	1	0	0	1	0	2	4	6	8.9
026N-027N 096W-095W 100yr	1	9	6	3	4	2	3	1	1	11	10	21	8.7
50yr	1	2	2	0	1	0	0	1	1	3	3	6	8.6
026N-027N 095W-094W 100yr	2	12	6	6	4	1	4	0	1	10	14	24	9.1
50yr	2	4	2	2	1	1	0	0	1	3	6	9	8.3
026N-027N 094W-093W 100yr	4	15	7	8	5	1	4	1	0	11	19	30	8.9
50yr	4	5	2	3	2	1	0	1	0	4	9	13	8.3
026N-027N 093W-092W 100yr	4	21	11	10	6	1	1	2	0	10	25	35	8.3
50yr	4	9	4	5	1	1	0	0	0	2	13	15	7.8
026N-027N 092W-091W 100yr	3	17	8	9	10	3	0	4	0	17	20	37	9.9

Grid Cell	TD	TS	G	S	S1	S2	S3	S4	S5	H	<H	All	Spd
50yr	3	10	3	7	4	1	0	1	0	6	13	19	9.9
026N-027N 091W-090W 100yr	6	16	9	7	6	3	1	3	0	13	22	35	10.3
50yr	6	6	2	4	3	0	1	0	0	4	12	16	9.7
026N-027N 090W-089W 100yr	4	19	14	5	2	4	5	1	0	12	23	35	11.0
50yr	4	7	6	1	0	2	2	0	0	4	11	15	10.6
026N-027N 089W-088W 100yr	6	15	9	6	2	2	3	2	1	10	21	31	10.9
50yr	6	6	4	2	0	2	1	0	1	4	12	16	10.8
026N-027N 088W-087W 100yr	3	15	10	5	2	1	3	4	1	11	18	29	11.3
50yr	3	8	6	2	0	1	1	2	1	5	11	16	11.7
026N-027N 087W-086W 100yr	5	16	9	7	4	1	3	3	0	11	21	32	11.3
50yr	5	8	5	3	2	1	2	2	0	7	13	20	11.8
026N-027N 086W-085W 100yr	7	13	9	4	4	2	1	3	0	10	20	30	12.5
50yr	7	6	3	3	2	1	1	2	0	6	13	19	14.5
026N-027N 085W-084W 100yr	6	14	10	4	3	0	0	2	0	5	20	25	12.3
50yr	6	5	2	3	2	0	0	1	0	3	11	14	14.3
026N-027N 084W-083W 100yr	4	13	5	8	2	2	3	2	0	9	17	26	14.0
50yr	4	7	2	5	0	0	1	0	0	1	11	12	16.4
026N-027N 083W-082W 100yr	1	16	6	10	2	3	4	2	0	11	17	28	12.5
50yr	1	10	3	7	0	0	1	0	0	1	11	12	12.6
026N-027N 082W-081W 100yr	5	14	9	5	2	0	3	4	0	9	19	28	11.9
50yr	3	10	6	4	0	0	1	1	0	2	13	15	13.4
026N-027N 081W-080W 100yr	6	13	10	3	5	4	3	5	0	17	19	36	12.6
50yr	6	9	6	3	1	2	1	0	0	4	15	19	14.4
026N-027N 080W-079W 100yr	6	14	10	4	6	7	3	3	1	20	20	40	12.8
50yr	5	9	6	3	1	1	1	0	0	3	14	17	15.1
026N-027N 079W-078W 100yr	4	17	12	5	7	1	3	3	1	15	21	36	14.4
50yr	4	5	3	2	2	0	0	0	0	2	9	11	14.5
026N-027N 078W-077W 100yr	4	14	10	4	7	0	3	1	2	13	18	31	13.2
50yr	4	1	0	1	2	0	1	0	0	3	5	8	9.6
026N-027N 077W-076W 100yr	4	17	13	4	6	3	2	1	1	13	21	34	11.3
50yr	4	4	1	3	3	1	2	0	0	6	8	14	10.1
026N-027N 076W-075W 100yr	6	14	9	5	8	3	4	0	1	16	20	36	12.5
50yr	6	5	2	3	3	1	2	0	0	6	11	17	11.0
026N-027N 075W-074W 100yr	4	7	4	3	9	3	4	3	1	20	11	31	11.8
50yr	3	3	2	1	5	1	2	1	0	9	6	15	10.2
026N-027N 074W-073W 100yr	4	8	4	4	6	2	3	5	1	17	12	29	11.8
50yr	4	5	1	4	4	1	3	2	0	10	9	19	11.5
026N-027N 073W-072W 100yr	4	16	10	6	6	3	3	2	0	14	20	34	11.9
50yr	4	8	3	5	3	2	2	1	0	8	12	20	12.0
026N-027N 072W-071W 100yr	4	11	8	3	8	5	2	4	0	19	15	34	13.0
50yr	4	5	4	1	5	2	1	3	0	11	9	20	13.5
026N-027N 071W-070W 100yr	5	8	8	0	7	5	1	1	0	14	13	27	13.9
50yr	4	1	1	0	2	1	1	1	0	5	5	10	15.0
026N-027N 070W-069W 100yr	4	8	6	2	3	5	4	1	0	13	12	25	11.9
50yr	4	1	0	1	1	3	2	1	0	7	5	12	12.1
026N-027N 069W-068W 100yr	4	10	9	1	2	5	5	2	1	15	14	29	12.5
50yr	4	1	1	0	0	2	3	2	0	7	5	12	11.9
026N-027N 068W-067W 100yr	3	10	7	3	2	2	3	3	1	11	13	24	12.4

Grid Cell	TD	TS	G	S	S1	S2	S3	S4	S5	H	<H	All	Spd
50yr	2	5	3	2	0	1	1	2	1	5	7	12	12.8
026N-027N 067W-066W 100yr	3	11	8	3	2	3	1	2	0	8	14	22	13.1
50yr	2	6	4	2	1	1	0	1	0	3	8	11	13.2
026N-027N 066W-065W 100yr	2	8	5	3	3	3	4	3	0	13	10	23	11.7
50yr	1	4	3	1	2	0	1	2	0	5	5	10	14.2
026N-027N 065W-064W 100yr	1	7	7	0	4	2	4	2	0	12	8	20	10.5
50yr	0	3	3	0	4	1	1	2	0	8	3	11	12.9
026N-027N 064W-063W 100yr	1	6	3	3	5	2	1	0	0	8	7	15	11.2
50yr	0	6	3	3	3	1	0	0	0	4	6	10	9.9
026N-027N 063W-062W 100yr	2	5	2	3	3	3	2	0	0	8	7	15	11.2
50yr	2	2	1	1	2	2	1	0	0	5	4	9	12.1
026N-027N 062W-061W 100yr	4	5	5	0	6	3	4	1	0	14	9	23	11.2
50yr	4	2	2	0	4	0	4	1	0	9	6	15	11.3
026N-027N 061W-060W 100yr	4	3	3	0	8	2	3	3	0	16	7	23	12.3
50yr	4	1	1	0	5	1	3	3	0	12	5	17	12.6
026N-027N 060W-059W 100yr	4	3	0	3	7	2	0	3	0	12	7	19	12.9
50yr	4	2	0	2	4	1	0	2	0	7	6	13	12.3
026N-027N 059W-058W 100yr	3	4	0	4	5	2	0	1	0	8	7	15	13.1
50yr	3	3	0	3	4	0	0	1	0	5	6	11	11.2
026N-027N 058W-057W 100yr	1	4	2	2	7	5	0	0	0	12	5	17	13.0
50yr	1	4	2	2	4	2	0	0	0	6	5	11	12.1
026N-027N 057W-056W 100yr	2	3	3	0	3	2	1	0	0	6	5	11	12.0
50yr	2	2	2	0	1	0	1	0	0	2	4	6	12.6
026N-027N 056W-055W 100yr	2	5	3	2	2	1	1	0	0	4	7	11	12.0
50yr	2	3	2	1	2	1	0	0	0	3	5	8	12.6
026N-027N 055W-054W 100yr	2	6	5	1	6	3	2	1	0	12	8	20	14.5
50yr	2	2	2	0	5	1	1	1	0	8	4	12	15.2
026N-027N 054W-053W 100yr	2	7	5	2	4	0	3	0	0	7	9	16	16.2
50yr	2	4	3	1	3	0	3	0	0	6	6	12	15.9
026N-027N 053W-052W 100yr	2	5	4	1	2	1	2	1	0	6	7	13	13.5
50yr	2	3	2	1	2	0	2	1	0	5	5	10	13.8
026N-027N 052W-051W 100yr	3	3	2	1	2	1	0	0	0	3	6	9	14.9
50yr	3	2	1	1	2	0	0	0	0	2	5	7	15.0
026N-027N 051W-050W 100yr	5	4	2	2	2	2	0	0	0	4	9	13	17.6
50yr	5	2	1	1	2	1	0	0	0	3	7	10	17.5
026N-027N 050W-049W 100yr	4	3	1	2	0	1	0	0	0	1	7	8	16.4
50yr	4	1	0	1	0	1	0	0	0	1	5	6	17.0
026N-027N 049W-048W 100yr	1	1	1	0	3	1	0	0	0	4	2	6	11.1
50yr	1	1	1	0	2	1	0	0	0	3	2	5	11.9
026N-027N 048W-047W 100yr	2	2	0	2	4	0	0	0	0	4	4	8	15.5
50yr	2	0	0	0	3	0	0	0	0	3	2	5	16.2
026N-027N 047W-046W 100yr	2	6	2	4	3	0	0	0	0	3	8	11	12.6
50yr	2	2	1	1	3	0	0	0	0	3	4	7	13.2
026N-027N 046W-045W 100yr	2	4	0	4	1	1	0	0	0	2	6	8	11.0
50yr	2	2	0	2	1	1	0	0	0	2	4	6	12.7
026N-027N 045W-044W 100yr	0	3	1	2	1	0	0	0	0	1	3	4	11.4
50yr	0	2	0	2	1	0	0	0	0	1	2	3	12.5
026N-027N 044W-043W 100yr	1	5	0	5	1	0	0	0	0	1	6	7	13.9

Grid Cell	TD	TS	G	S	S1	S2	S3	S4	S5	H	<H	All	Spd
50yr	1	4	0	4	1	0	0	0	0	1	5	6	14.4
026N-027N 043W-042W 100yr	0	4	1	3	1	0	0	0	0	1	4	5	14.7
50yr	0	4	1	3	1	0	0	0	0	1	4	5	14.7
026N-027N 042W-041W 100yr	0	4	1	3	3	0	0	0	0	3	4	7	14.8
50yr	0	4	1	3	3	0	0	0	0	3	4	7	14.8
026N-027N 041W-040W 100yr	0	4	0	4	1	0	0	0	0	1	4	5	17.0
50yr	0	4	0	4	1	0	0	0	0	1	4	5	17.0
026N-027N 040W-039W 100yr	0	4	2	2	2	1	0	0	0	3	4	7	12.9
50yr	0	4	2	2	2	1	0	0	0	3	4	7	12.9
026N-027N 039W-038W 100yr	0	3	1	2	1	0	0	0	0	1	3	4	14.8
50yr	0	2	1	1	1	0	0	0	0	1	2	3	14.8
026N-027N 038W-037W 100yr	0	4	2	2	0	0	0	0	0	0	4	4	13.6
50yr	0	2	1	1	0	0	0	0	0	0	2	2	17.0
026N-027N 037W-036W 100yr	0	3	2	1	0	0	0	0	0	0	3	3	12.5
50yr	0	1	1	0	0	0	0	0	0	0	1	1	14.9
026N-027N 036W-035W 100yr	0	2	2	0	0	0	0	0	0	0	2	2	11.2
50yr	0	1	1	0	0	0	0	0	0	0	1	1	14.9
026N-027N 035W-034W 100yr	1	1	0	1	0	0	0	0	0	0	2	2	13.6
50yr	1	1	0	1	0	0	0	0	0	0	2	2	13.6
026N-027N 034W-033W 100yr	1	1	0	1	0	0	0	0	0	0	2	2	13.6
50yr	1	1	0	1	0	0	0	0	0	0	2	2	13.6
026N-027N 033W-032W 100yr	0	1	0	1	0	0	0	0	0	0	1	1	8.3
50yr	0	1	0	1	0	0	0	0	0	0	1	1	8.3
026N-027N 032W-031W 100yr	0	2	0	2	0	0	0	0	0	0	2	2	10.0
50yr	0	1	0	1	0	0	0	0	0	0	1	1	8.6
026N-027N 031W-030W 100yr	0	1	0	1	0	0	0	0	0	0	1	1	11.5
50yr	0	0	0	0	0	0	0	0	0	0	0	0	0.0
026N-027N 030W-029W 100yr	0	1	1	0	0	0	0	0	0	0	1	1	15.7
50yr	0	1	1	0	0	0	0	0	0	0	1	1	15.7
026N-027N 027W-026W 100yr	0	1	1	0	0	0	0	0	0	0	1	1	17.4
50yr	0	1	1	0	0	0	0	0	0	0	1	1	17.4
026N-027N 026W-025W 100yr	0	1	1	0	0	0	0	0	0	0	1	1	17.4
50yr	0	1	1	0	0	0	0	0	0	0	1	1	17.4

027°N to 028°N

Grid Cell	TD	TS	G	S	S1	S2	S3	S4	S5	H	<H	All	Spd
027N-028N 104W-103W 100yr	2	0	0	0	0	0	0	0	0	0	2	2	13.1
50yr	2	0	0	0	0	0	0	0	0	0	2	2	13.1
027N-028N 103W-102W 100yr	1	0	0	0	0	0	0	0	0	0	1	1	7.6
50yr	1	0	0	0	0	0	0	0	0	0	1	1	7.6
027N-028N 102W-101W 100yr	1	0	0	0	0	0	0	0	0	0	1	1	7.7
50yr	1	0	0	0	0	0	0	0	0	0	1	1	7.7
027N-028N 101W-100W 100yr	2	3	2	1	0	0	0	0	0	0	5	5	14.4
50yr	2	1	0	1	0	0	0	0	0	0	3	3	11.1
027N-028N 100W-099W 100yr	2	7	5	2	2	1	0	0	0	3	9	12	11.4
50yr	1	4	3	1	0	1	0	0	0	1	5	6	8.9
027N-028N 099W-098W 100yr	3	4	4	0	5	2	1	0	0	8	7	15	8.4

Grid Cell	TD	TS	G	S	S1	S2	S3	S4	S5	H	<H	All	Spd
50yr	2	2	2	0	1	2	0	0	0	3	4	7	6.2
027N-028N 098W-097W 100yr	1	10	8	2	6	1	3	0	0	10	11	21	9.9
50yr	1	7	5	2	0	1	2	0	0	3	8	11	10.1
027N-028N 097W-096W 100yr	1	6	2	4	5	1	1	1	1	9	7	16	10.1
50yr	1	5	1	4	0	0	1	0	1	2	6	8	10.8
027N-028N 096W-095W 100yr	0	11	9	2	5	4	1	0	1	11	11	22	9.5
50yr	0	7	5	2	1	1	0	0	1	3	7	10	9.1
027N-028N 095W-094W 100yr	1	11	7	4	6	1	1	0	1	9	12	21	9.5
50yr	1	6	4	2	3	1	0	0	1	5	7	12	8.5
027N-028N 094W-093W 100yr	1	15	10	5	3	1	0	3	0	7	16	23	9.3
50yr	1	5	3	2	2	0	0	1	0	3	6	9	8.6
027N-028N 093W-092W 100yr	6	13	9	4	5	1	0	2	0	8	19	27	9.1
50yr	6	3	1	2	3	0	0	0	0	3	9	12	8.1
027N-028N 092W-091W 100yr	5	16	10	6	7	3	0	2	0	12	21	33	9.4
50yr	5	7	3	4	3	0	0	1	0	4	12	16	8.8
027N-028N 091W-090W 100yr	4	21	15	6	7	1	0	1	0	9	25	34	9.6
50yr	4	8	4	4	1	0	0	1	0	2	12	14	10.3
027N-028N 090W-089W 100yr	3	24	20	4	2	2	2	3	0	9	27	36	10.8
50yr	3	7	5	2	1	0	1	1	0	3	10	13	11.3
027N-028N 089W-088W 100yr	4	24	18	6	0	3	2	4	1	10	28	38	12.4
50yr	4	10	7	3	0	1	1	3	1	6	14	20	11.8
027N-028N 088W-087W 100yr	3	14	10	4	4	3	2	4	0	13	17	30	12.4
50yr	3	6	4	2	0	3	1	3	0	7	9	16	13.5
027N-028N 087W-086W 100yr	3	20	14	6	7	1	1	1	0	10	23	33	12.8
50yr	3	8	5	3	2	1	1	1	0	5	11	16	13.6
027N-028N 086W-085W 100yr	4	13	9	4	6	1	2	0	0	9	17	26	12.3
50yr	3	3	1	2	2	0	0	0	0	2	6	8	12.4
027N-028N 085W-084W 100yr	6	9	8	1	8	1	2	0	0	11	15	26	11.6
50yr	5	1	0	1	2	0	0	0	0	2	6	8	14.0
027N-028N 084W-083W 100yr	7	11	5	6	4	2	5	0	0	11	18	29	12.3
50yr	6	2	1	1	2	0	1	0	0	3	8	11	16.7
027N-028N 083W-082W 100yr	5	10	5	5	3	2	1	1	0	7	15	22	13.3
50yr	5	4	1	3	0	0	0	0	0	0	9	9	14.1
027N-028N 082W-081W 100yr	7	12	8	4	7	0	2	3	0	12	19	31	11.7
50yr	6	9	5	4	1	0	0	1	0	2	15	17	12.2
027N-028N 081W-080W 100yr	6	17	12	5	6	5	0	3	0	14	23	37	11.1
50yr	5	12	7	5	2	2	0	0	0	4	17	21	11.9
027N-028N 080W-079W 100yr	4	13	8	5	6	3	1	1	0	11	17	28	12.6
50yr	3	9	5	4	1	0	1	0	0	2	12	14	15.6
027N-028N 079W-078W 100yr	5	16	14	2	4	2	1	1	0	8	21	29	15.3
50yr	5	7	6	1	1	0	1	1	0	3	12	15	17.2
027N-028N 078W-077W 100yr	2	17	13	4	7	3	2	1	1	14	19	33	15.6
50yr	2	6	5	1	1	1	0	1	0	3	8	11	18.2
027N-028N 077W-076W 100yr	6	16	11	5	10	3	5	1	0	19	22	41	13.4
50yr	6	6	4	2	3	2	3	0	0	8	12	20	12.0
027N-028N 076W-075W 100yr	6	10	5	5	7	4	5	3	0	19	16	35	14.0
50yr	5	4	2	2	4	1	4	1	0	10	9	19	12.3
027N-028N 075W-074W 100yr	5	6	5	1	9	3	5	4	0	21	11	32	13.6

Grid Cell	TD	TS	G	S	S1	S2	S3	S4	S5	H	<H	All	Spd
50yr	4	3	2	1	4	1	3	1	0	9	7	16	12.5
027N-028N 074W-073W 100yr	4	15	12	3	6	6	4	1	0	17	19	36	12.6
50yr	4	8	6	2	5	3	3	0	0	11	12	23	11.6
027N-028N 073W-072W 100yr	3	17	13	4	5	5	1	1	0	12	20	32	11.9
50yr	3	11	8	3	3	2	0	1	0	6	14	20	11.7
027N-028N 072W-071W 100yr	3	8	6	2	4	3	2	2	0	11	11	22	12.9
50yr	3	4	3	1	3	0	1	2	0	6	7	13	13.1
027N-028N 071W-070W 100yr	1	11	8	3	6	4	2	1	0	13	12	25	12.9
50yr	1	4	2	2	4	1	1	1	0	7	5	12	14.2
027N-028N 070W-069W 100yr	3	11	7	4	5	8	6	1	0	20	14	34	11.4
50yr	3	3	0	3	3	4	3	1	0	11	6	17	11.5
027N-028N 069W-068W 100yr	2	12	10	2	3	5	7	2	1	18	14	32	12.4
50yr	2	3	1	2	1	1	3	2	0	7	5	12	11.9
027N-028N 068W-067W 100yr	3	16	10	6	4	2	3	1	1	11	19	30	13.2
50yr	3	6	1	5	2	0	2	0	1	5	9	14	12.1
027N-028N 067W-066W 100yr	1	19	14	5	4	3	3	4	0	14	20	34	12.3
50yr	1	10	6	4	2	2	1	2	0	7	11	18	11.1
027N-028N 066W-065W 100yr	0	8	4	4	4	5	4	2	0	15	8	23	10.4
50yr	0	7	4	3	2	3	2	2	0	9	7	16	10.2
027N-028N 065W-064W 100yr	3	7	5	2	4	3	5	0	0	12	10	22	10.9
50yr	3	4	2	2	2	2	3	0	0	7	7	14	10.3
027N-028N 064W-063W 100yr	2	5	4	1	6	0	5	0	0	11	7	18	11.8
50yr	1	3	2	1	3	0	2	0	0	5	4	9	10.6
027N-028N 063W-062W 100yr	4	9	5	4	5	2	5	1	0	13	13	26	12.0
50yr	3	4	2	2	1	1	4	1	0	7	7	14	11.5
027N-028N 062W-061W 100yr	3	12	6	6	6	3	3	1	0	13	15	28	12.9
50yr	3	5	2	3	1	2	2	1	0	6	8	14	11.0
027N-028N 061W-060W 100yr	1	8	5	3	8	1	3	1	0	13	9	22	14.5
50yr	1	2	1	1	5	1	2	1	0	9	3	12	11.4
027N-028N 060W-059W 100yr	3	4	2	2	4	2	0	2	0	8	7	15	12.7
50yr	2	1	0	1	3	1	0	1	0	5	3	8	11.0
027N-028N 059W-058W 100yr	3	1	0	1	2	3	0	1	0	6	4	10	14.9
50yr	2	1	0	1	0	1	0	1	0	2	3	5	15.7
027N-028N 058W-057W 100yr	5	3	2	1	5	5	0	1	0	11	8	19	13.8
50yr	4	2	1	1	3	2	0	1	0	6	6	12	13.7
027N-028N 057W-056W 100yr	4	2	2	0	2	1	2	0	0	5	6	11	11.0
50yr	3	1	1	0	2	0	1	0	0	3	4	7	12.2
027N-028N 056W-055W 100yr	1	5	2	3	4	3	1	1	0	9	6	15	13.6
50yr	1	3	1	2	3	2	0	1	0	6	4	[illegible]	13.6
027N-028N 055W-054W 100yr	1	6	4	2	5	3	1	1	0	10	7	17	14.2
50yr	1	3	2	1	4	1	1	1	0	7	4	11	14.6
027N-028N 054W-053W 100yr	0	4	1	3	3	0	3	1	0	7	4	11	12.8
50yr	0	3	0	3	3	0	3	1	0	7	3	10	13.2
027N-028N 053W-052W 100yr	3	5	3	2	3	3	1	1	0	8	8	16	12.1
50yr	3	4	2	2	3	1	1	1	0	6	7	13	12.2
027N-028N 052W-051W 100yr	2	4	3	1	4	4	0	0	0	8	6	14	12.3
50yr	2	3	2	1	4	2	0	0	0	6	5	11	11.8
027N-028N 051W-050W 100yr	1	1	0	1	2	3	0	0	0	5	2	7	12.9

Grid Cell		TD	TS	G	S	S1	S2	S3	S4	S5	H	<H	All	Spd
	50yr	1	0	0	0	2	2	0	0	0	4	1	5	11.6
027N-028N 050W-049W	100yr	3	2	1	1	3	2	0	0	0	5	5	10	15.0
	50yr	3	2	1	1	2	1	0	0	0	3	5	8	15.2
027N-028N 049W-048W	100yr	3	2	1	1	5	0	0	0	0	5	5	10	11.7
	50yr	3	1	1	0	3	0	0	0	0	3	4	7	13.7
027N-028N 048W-047W	100yr	1	1	0	1	5	0	0	0	0	5	2	7	13.1
	50yr	1	0	0	0	2	0	0	0	0	2	1	3	12.7
027N-028N 047W-046W	100yr	1	3	1	2	2	0	0	0	0	2	4	6	12.9
	50yr	1	2	1	1	1	0	0	0	0	1	3	4	15.6
027N-028N 046W-045W	100yr	1	1	0	1	1	0	1	0	0	2	2	4	15.0
	50yr	1	0	0	0	1	0	1	0	0	2	1	3	17.4
027N-028N 045W-044W	100yr	1	5	1	4	0	0	0	0	0	0	6	6	15.3
	50yr	1	2	0	2	0	0	0	0	0	0	3	3	21.3
027N-028N 044W-043W	100yr	1	6	1	5	0	0	0	0	0	0	7	7	13.9
	50yr	1	3	0	3	0	0	0	0	0	0	4	4	16.8
027N-028N 043W-042W	100yr	0	5	1	4	0	0	0	0	0	0	5	5	13.7
	50yr	0	4	1	3	0	0	0	0	0	0	4	4	15.1
027N-028N 042W-041W	100yr	0	5	3	2	3	0	0	0	0	3	5	8	17.5
	50yr	0	4	2	2	2	0	0	0	0	2	4	6	16.8
027N-028N 041W-040W	100yr	0	6	3	3	3	0	0	0	0	3	6	9	16.5
	50yr	0	4	1	3	2	0	0	0	0	2	4	6	17.3
027N-028N 040W-039W	100yr	0	6	4	2	2	1	0	0	0	3	6	9	15.3
	50yr	0	5	3	2	1	1	0	0	0	2	5	7	16.4
027N-028N 039W-038W	100yr	0	3	3	0	2	0	0	0	0	2	3	5	13.7
	50yr	0	2	2	0	1	0	0	0	0	1	2	3	16.5
027N-028N 038W-037W	100yr	0	1	1	0	1	0	0	0	0	1	1	2	9.2
	50yr	0	0	0	0	1	0	0	0	0	1	0	1	13.8
027N-028N 037W-036W	100yr	1	1	1	0	0	0	0	0	0	0	2	2	16.7
	50yr	1	1	1	0	0	0	0	0	0	0	2	2	16.7
027N-028N 036W-035W	100yr	1	1	1	0	0	0	0	0	0	0	2	2	16.2
	50yr	1	1	1	0	0	0	0	0	0	0	2	2	16.2
027N-028N 035W-034W	100yr	2	0	0	0	0	0	0	0	0	0	2	2	14.9
	50yr	2	0	0	0	0	0	0	0	0	0	2	2	14.9
027N-028N 032W-031W	100yr	0	1	0	1	0	0	0	0	0	0	1	1	9.0
	50yr	0	1	0	1	0	0	0	0	0	0	1	1	9.0
027N-028N 031W-030W	100yr	0	2	2	0	0	1	0	0	0	1	2	3	8.7
	50yr	0	1	1	0	0	1	0	0	0	1	1	2	7.0
027N-028N 030W-029W	100yr	0	2	2	0	0	0	0	0	0	0	2	2	13.0
	50yr	0	2	2	0	0	0	0	0	0	0	2	2	13.0
027N-028N 029W-028W	100yr	1	1	1	0	0	0	0	0	0	0	2	2	13.2
	50yr	1	1	1	0	0	0	0	0	0	0	2	2	13.2
027N-028N 028W-027W	100yr	0	1	1	0	0	0	0	0	0	0	1	1	17.9
	50yr	0	1	1	0	0	0	0	0	0	0	1	1	17.9
027N-028N 027W-026W	100yr	0	1	1	0	0	0	0	0	0	0	1	1	17.1
	50yr	0	1	1	0	0	0	0	0	0	0	1	1	17.1

028°N to 029°N

Grid Cell		TD	TS	G	S	S1	S2	S3	S4	S5	H	<H	All	Spd
028N-029N 104W-103W	100yr	1	0	0	0	0	0	0	0	0	0	1	1	19.6
	50yr	1	0	0	0	0	0	0	0	0	0	1	1	19.6
028N-029N 103W-102W	100yr	2	0	0	0	0	0	0	0	0	0	2	2	14.6
	50yr	2	0	0	0	0	0	0	0	0	0	2	2	14.6
028N-029N 102W-101W	100yr	1	1	1	0	0	0	0	0	0	0	2	2	9.9
	50yr	0	1	1	0	0	0	0	0	0	0	1	1	9.9
028N-029N 101W-100W	100yr	7	5	1	4	0	0	0	0	0	0	12	12	11.5
	50yr	6	2	0	2	0	0	0	0	0	0	8	8	11.4
028N-029N 100W-099W	100yr	6	5	2	3	1	0	0	0	0	1	11	12	11.0
	50yr	5	1	1	0	1	0	0	0	0	1	6	7	10.0
028N-029N 099W-098W	100yr	3	6	3	3	1	0	0	0	0	1	9	10	9.8
	50yr	3	3	3	0	1	0	0	0	0	1	6	7	9.7
028N-029N 098W-097W	100yr	3	7	4	3	1	0	1	0	0	2	10	12	10.8
	50yr	2	6	4	2	0	0	1	0	0	1	8	9	10.6
028N-029N 097W-096W	100yr	1	4	1	3	5	0	0	1	1	7	5	12	9.3
	50yr	1	3	0	3	1	0	0	0	1	2	4	6	7.0
028N-029N 096W-095W	100yr	0	10	8	2	5	2	2	0	0	9	10	19	8.8
	50yr	0	5	3	2	2	0	1	0	0	3	5	8	6.3
028N-029N 095W-094W	100yr	0	10	7	3	7	0	2	2	0	11	10	21	8.8
	50yr	0	6	4	2	4	0	1	0	0	5	6	11	9.0
028N-029N 094W-093W	100yr	1	13	7	6	7	0	1	3	0	11	14	25	9.8
	50yr	1	5	3	2	4	0	0	1	0	5	6	11	10.4
028N-029N 093W-092W	100yr	2	16	11	5	9	1	0	0	0	10	18	28	9.8
	50yr	2	3	0	3	4	0	0	0	0	4	5	9	10.1
028N-029N 092W-091W	100yr	2	15	9	6	7	2	1	2	0	12	17	29	9.2
	50yr	2	7	3	4	3	0	1	2	0	6	9	15	8.5
028N-029N 091W-090W	100yr	2	16	10	6	9	1	0	4	0	14	18	32	10.7
	50yr	2	8	3	5	2	0	0	3	0	5	10	15	10.1
028N-029N 090W-089W	100yr	1	9	8	1	6	1	1	4	0	12	10	22	10.3
	50yr	1	1	0	1	3	0	0	2	0	5	2	7	11.2
028N-029N 089W-088W	100yr	1	18	15	3	1	3	2	3	2	11	19	30	11.8
	50yr	1	5	3	2	1	1	0	2	2	6	6	12	10.7
028N-029N 088W-087W	100yr	2	15	12	3	3	3	4	3	0	13	17	30	12.1
	50yr	2	6	4	2	0	3	2	2	0	7	8	15	11.7
028N-029N 087W-086W	100yr	1	18	11	7	3	1	4	0	0	8	19	27	13.4
	50yr	0	8	3	5	0	1	3	0	0	4	8	12	13.6
028N-029N 086W-085W	100yr	3	13	9	4	9	0	2	0	0	11	16	27	14.0
	50yr	2	5	2	3	3	0	1	0	0	4	7	11	12.4
028N-029N 085W-084W	100yr	5	11	8	3	9	2	3	0	0	14	16	30	13.0
	50yr	4	1	0	1	1	1	1	0	0	3	5	8	13.2
028N-029N 084W-083W	100yr	4	10	4	6	4	4	2	0	0	10	14	24	12.6
	50yr	4	2	0	2	2	1	1	0	0	4	6	10	13.4
028N-029N 083W-082W	100yr	3	14	9	5	4	1	3	0	0	8	17	25	11.0
	50yr	2	6	4	2	1	0	0	0	0	1	8	9	13.1

Grid Cell	TD	TS	G	S	S1	S2	S3	S4	S5	H	<H	All	Spd
028N-029N 082W-081W 100yr	8	16	8	8	6	1	4	0	0	11	24	35	11.5
50yr	6	6	3	3	1	0	1	0	0	2	12	14	13.1
028N-029N 081W-080W 100yr	5	18	11	7	3	2	0	0	0	5	23	28	12.2
50yr	5	10	5	5	1	1	0	0	0	2	15	17	13.4
028N-029N 080W-079W 100yr	6	20	13	7	3	0	0	0	0	3	26	29	12.9
50yr	5	10	5	5	2	0	0	0	0	2	15	17	12.7
028N-029N 079W-078W 100yr	7	15	11	4	6	1	2	1	0	10	22	32	13.3
50yr	7	6	3	3	3	0	2	1	0	6	13	19	12.6
028N-029N 078W-077W 100yr	6	14	10	4	8	4	2	2	1	17	20	37	13.1
50yr	6	8	4	4	4	1	2	1	0	8	14	22	13.9
028N-029N 077W-076W 100yr	6	15	8	7	12	5	6	1	1	25	21	46	13.3
50yr	6	8	3	5	5	2	4	1	0	12	14	26	13.3
028N-029N 076W-075W 100yr	2	12	7	5	8	9	8	3	0	28	14	42	12.1
50yr	2	6	3	3	4	4	3	1	0	12	8	20	11.0
028N-029N 075W-074W 100yr	5	12	9	3	8	5	9	3	0	25	17	42	13.1
50yr	5	5	3	2	4	1	5	0	0	10	10	20	12.5
028N-029N 074W-073W 100yr	4	16	14	2	4	4	6	2	0	16	20	36	13.8
50yr	4	6	5	1	3	1	3	1	0	8	10	18	12.9
028N-029N 073W-072W 100yr	3	14	11	3	6	3	5	1	0	15	17	32	14.5
50yr	3	8	6	2	3	2	1	1	0	7	11	18	13.7
028N-029N 072W-071W 100yr	5	13	9	4	4	2	3	1	0	10	18	28	15.9
50yr	5	7	4	3	2	1	1	1	0	5	12	17	15.6
028N-029N 071W-070W 100yr	4	13	9	4	3	7	3	3	0	16	17	33	14.9
50yr	4	5	3	2	1	4	2	3	0	10	9	19	14.7
028N-029N 070W-069W 100yr	3	12	8	4	6	8	5	1	0	20	15	35	14.0
50yr	3	4	2	2	4	4	3	1	0	12	7	19	12.4
028N-029N 069W-068W 100yr	1	7	5	2	6	7	6	0	1	20	8	28	11.8
50yr	1	3	1	2	4	3	2	0	0	9	4	13	11.6
028N-029N 068W-067W 100yr	1	8	6	2	4	2	1	3	1	11	9	20	11.6
50yr	1	3	1	2	2	0	0	1	0	3	4	7	12.7
028N-029N 067W-066W 100yr	2	15	10	5	7	3	3	4	0	17	17	34	14.4
50yr	2	6	1	5	3	0	1	2	0	6	8	14	13.5
028N-029N 066W-065W 100yr	5	15	9	6	5	3	0	0	0	8	20	28	15.3
50yr	5	8	2	6	2	2	0	0	0	4	13	17	16.0
028N-029N 065W-064W 100yr	3	9	9	0	3	4	2	1	0	10	12	22	16.0
50yr	3	2	2	0	1	2	1	0	0	4	5	9	17.4
028N-029N 064W-063W 100yr	1	7	7	0	4	4	3	0	0	11	8	19	12.6
50yr	1	2	2	0	2	2	1	0	0	5	3	8	13.0
028N-029N 063W-062W 100yr	2	7	4	3	7	2	2	1	0	12	9	21	12.1
50yr	1	2	1	1	2	1	2	1	0	6	3	9	10.1
028N-029N 062W-061W 100yr	3	7	3	4	8	1	0	0	0	9	10	19	13.0
50yr	2	2	0	2	4	1	0	0	0	5	4	9	12.8
028N-029N 061W-060W 100yr	2	9	5	4	6	1	2	0	0	9	11	20	15.7
50yr	2	5	2	3	4	0	1	0	0	5	7	12	11.6
028N-029N 060W-059W 100yr	2	5	2	3	5	2	3	1	0	11	7	18	16.0
50yr	2	5	2	3	2	0	2	0	0	4	7	11	11.7
028N-029N 059W-058W 100yr	1	2	1	1	4	4	1	0	0	9	3	12	17.5
50yr	1	2	1	1	1	1	0	0	0	2	3	5	13.8

Grid Cell	TD	TS	G	S	S1	S2	S3	S4	S5	H	<H	All	Spd
028N-029N 058W-057W 100yr	2	2	1	1	1	3	3	1	0	8	4	12	14.0
50yr	2	1	0	1	1	0	2	1	0	4	3	7	13.4
028N-029N 057W-056W 100yr	3	2	2	0	2	2	4	0	0	8	5	13	15.2
50yr	2	2	2	0	2	0	3	0	0	5	4	9	16.1
028N-029N 056W-055W 100yr	1	7	4	3	1	4	2	2	0	9	8	17	15.0
50yr	1	4	3	1	1	2	2	2	0	7	5	12	14.7
028N-029N 055W-054W 100yr	2	6	4	2	3	2	1	2	0	8	8	16	12.1
50yr	2	3	2	1	3	1	1	2	0	7	5	12	12.3
028N-029N 054W-053W 100yr	2	3	3	0	4	1	1	1	0	7	5	12	11.9
50yr	2	2	2	0	4	1	1	1	0	7	4	11	12.2
028N-029N 053W-052W 100yr	4	4	3	1	3	3	0	0	0	6	8	14	10.4
50yr	4	4	3	1	3	1	0	0	0	4	8	12	10.1
028N-029N 052W-051W 100yr	2	3	2	1	3	4	0	0	0	7	5	12	11.4
50yr	2	2	1	1	3	2	0	0	0	5	4	9	10.4
028N-029N 051W-050W 100yr	2	2	2	0	2	4	0	0	0	6	4	10	13.1
50yr	2	1	1	0	1	3	0	0	0	4	3	7	13.1
028N-029N 050W-049W 100yr	2	4	1	3	3	3	0	0	0	6	6	12	14.9
50yr	2	3	1	2	1	2	0	0	0	3	5	8	15.4
028N-029N 049W-048W 100yr	2	2	1	1	3	3	0	0	0	6	4	10	12.8
50yr	2	1	1	0	0	2	0	0	0	2	3	5	14.1
028N-029N 048W-047W 100yr	2	3	1	2	4	1	0	0	0	5	5	10	16.8
50yr	2	2	1	1	0	1	0	0	0	1	4	5	18.5
028N-029N 047W-046W 100yr	2	4	2	2	2	1	0	0	0	3	6	9	15.9
50yr	2	3	2	1	0	1	0	0	0	1	5	6	18.1
028N-029N 046W-045W 100yr	3	4	2	2	3	1	1	0	0	5	7	12	17.1
50yr	3	2	1	1	2	1	1	0	0	4	5	9	19.0
028N-029N 045W-044W 100yr	3	4	1	3	5	0	0	0	0	5	7	12	17.3
50yr	3	2	0	2	4	0	0	0	0	4	5	9	19.3
028N-029N 044W-043W 100yr	2	5	1	4	2	1	0	0	0	3	7	10	15.6
50yr	2	3	0	3	1	0	0	0	0	1	5	6	16.6
028N-029N 043W-042W 100yr	0	6	3	3	3	0	0	0	0	3	6	9	12.7
50yr	0	4	3	1	1	0	0	0	0	1	4	5	12.1
028N-029N 042W-041W 100yr	0	6	4	2	6	0	0	0	0	6	6	12	14.4
50yr	0	4	3	1	4	0	0	0	0	4	4	8	14.8
028N-029N 041W-040W 100yr	0	5	2	3	2	0	0	0	0	2	5	7	12.7
50yr	0	3	1	2	2	0	0	0	0	2	3	5	12.6
028N-029N 040W-039W 100yr	0	4	1	3	1	0	0	0	0	1	4	5	17.5
50yr	0	3	1	2	1	0	0	0	0	1	3	4	18.5
028N-029N 039W-038W 100yr	0	1	0	1	1	0	0	0	0	1	1	2	21.9
50yr	0	1	0	1	1	0	0	0	0	1	1	2	21.9
028N-029N 038W-037W 100yr	1	0	0	0	1	0	0	0	0	1	1	2	15.3
50yr	1	0	0	0	1	0	0	0	0	1	1	2	15.3
028N-029N 037W-036W 100yr	1	0	0	0	0	0	0	0	0	0	1	1	18.5
50yr	1	0	0	0	0	0	0	0	0	0	1	1	18.5
028N-029N 035W-034W 100yr	1	0	0	0	0	0	0	0	0	0	1	1	13.9
50yr	1	0	0	0	0	0	0	0	0	0	1	1	13.9
028N-029N 032W-031W 100yr	0	0	0	0	0	1	0	0	0	1	0	1	7.1
50yr	0	0	0	0	0	1	0	0	0	1	0	1	7.1

Grid Cell	TD	TS	G	S	S1	S2	S3	S4	S5	H	<H	All	Spd
028N-029N 031W-030W 100yr	0	1	1	0	0	1	0	0	0	1	1	2	8.6
50yr	0	0	0	0	0	1	0	0	0	1	0	1	7.6
028N-029N 030W-029W 100yr	0	1	1	0	0	0	0	0	0	0	1	1	7.5
50yr	0	0	0	0	0	0	0	0	0	0	0	0	0.0
028N-029N 029W-028W 100yr	1	2	2	0	0	0	0	0	0	0	3	3	14.8
50yr	1	2	2	0	0	0	0	0	0	0	3	3	14.8
028N-029N 028W-027W 100yr	1	1	1	0	0	0	0	0	0	0	2	2	14.6
50yr	1	1	1	0	0	0	0	0	0	0	2	2	14.6

029°N to 030°N

Grid Cell	TD	TS	G	S	S1	S2	S3	S4	S5	H	<H	All	Spd
029N-030N 103W-102W 100yr	1	1	0	1	0	0	0	0	0	0	2	2	17.3
50yr	1	1	0	1	0	0	0	0	0	0	2	2	17.3
029N-030N 102W-101W 100yr	3	2	1	1	0	0	0	0	0	0	5	5	14.1
50yr	3	1	0	1	0	0	0	0	0	0	4	4	12.3
029N-030N 101W-100W 100yr	5	3	1	2	0	0	0	0	0	0	8	8	13.1
50yr	5	1	0	1	0	0	0	0	0	0	6	6	11.2
029N-030N 100W-099W 100yr	2	2	2	0	0	0	0	0	0	0	4	4	12.5
50yr	2	0	0	0	0	0	0	0	0	0	2	2	7.9
029N-030N 099W-098W 100yr	4	2	1	1	0	0	0	0	0	0	6	6	9.8
50yr	3	0	0	0	0	0	0	0	0	0	3	3	7.3
029N-030N 098W-097W 100yr	3	5	3	2	2	0	1	0	0	3	8	11	12.2
50yr	1	3	2	1	0	0	1	0	0	1	4	5	11.8
029N-030N 097W-096W 100yr	5	7	6	1	5	0	1	1	0	7	12	19	9.9
50yr	3	3	3	0	0	0	1	0	0	1	6	7	8.6
029N-030N 096W-095W 100yr	1	9	8	1	6	1	2	3	0	12	10	22	8.9
50yr	1	6	5	1	2	0	1	0	0	3	7	10	8.2
029N-030N 095W-094W 100yr	0	8	4	4	8	0	1	1	0	10	8	18	8.6
50yr	0	6	2	4	4	0	0	0	0	4	6	10	10.0
029N-030N 094W-093W 100yr	0	12	6	6	6	2	0	1	0	9	12	21	9.9
50yr	0	6	1	5	3	1	0	1	0	5	6	11	11.4
029N-030N 093W-092W 100yr	1	13	11	2	4	2	1	0	0	7	14	21	10.2
50yr	1	3	1	2	2	1	1	0	0	4	4	8	10.9
029N-030N 092W-091W 100yr	1	9	7	2	3	4	1	2	0	10	10	20	10.6
50yr	1	2	1	1	2	1	1	2	0	6	3	9	8.4
029N-030N 091W-090W 100yr	1	11	7	4	3	3	0	1	0	7	12	19	11.8
50yr	1	7	3	4	1	0	0	1	0	2	8	10	11.0
029N-030N 090W-089W 100yr	2	9	6	3	7	0	0	0	1	8	11	19	11.6
50yr	1	4	2	2	4	0	0	0	1	5	5	10	9.3
029N-030N 089W-088W 100yr	1	11	8	3	4	3	2	2	2	13	12	25	11.5
50yr	0	5	3	2	2	1	1	1	2	7	5	12	9.8
029N-030N 088W-087W 100yr	2	13	12	1	7	2	3	3	0	15	15	30	12.1
50yr	1	5	4	1	1	1	1	2	0	5	6	11	13.1
029N-030N 087W-086W 100yr	4	13	8	5	5	3	3	0	0	11	17	28	11.1
50yr	3	6	3	3	1	3	2	0	0	6	9	15	11.2
029N-030N 086W-085W 100yr	2	12	7	5	10	1	1	0	0	12	14	26	11.4
50yr	2	7	3	4	3	1	1	0	0	5	9	14	11.2

Grid Cell	TD	TS	G	S	S1	S2	S3	S4	S5	H	<H	All	Spd
029N-030N 085W-084W 100yr	3	16	9	7	4	1	0	0	0	5	19	24	14.0
50yr	2	5	2	3	0	1	0	0	0	1	7	8	14.1
029N-030N 084W-083W 100yr	7	20	12	8	1	0	1	0	0	2	27	29	15.1
50yr	5	5	2	3	0	0	0	0	0	0	10	10	16.1
029N-030N 083W-082W 100yr	7	19	12	7	4	1	1	0	0	6	26	32	12.8
50yr	5	4	2	2	1	1	0	0	0	2	9	11	14.3
029N-030N 082W-081W 100yr	8	20	12	8	5	1	2	0	0	8	28	36	12.5
50yr	6	5	2	3	1	0	2	0	0	3	11	14	13.1
029N-030N 081W-080W 100yr	7	18	13	5	2	2	2	0	0	6	25	31	11.7
50yr	7	8	4	4	1	1	2	0	0	4	15	19	12.0
029N-030N 080W-079W 100yr	6	15	10	5	3	1	2	0	0	6	21	27	13.1
50yr	6	8	5	3	2	1	2	0	0	5	14	19	11.8
029N-030N 079W-078W 100yr	10	14	9	5	7	2	3	0	0	12	24	36	12.8
50yr	10	9	4	5	3	2	3	0	0	8	19	27	12.6
029N-030N 078W-077W 100yr	5	16	11	5	8	3	3	2	0	16	21	37	12.1
50yr	5	12	7	5	3	1	3	1	0	8	17	25	13.6
029N-030N 077W-076W 100yr	3	14	10	4	8	6	3	2	0	19	17	36	12.1
50yr	3	7	5	2	4	3	3	0	0	10	10	20	13.7
029N-030N 076W-075W 100yr	2	13	7	6	9	8	6	2	0	25	15	40	12.2
50yr	2	7	4	3	5	3	4	0	0	12	9	21	12.7
029N-030N 075W-074W 100yr	5	12	6	6	6	7	5	2	0	20	17	37	13.6
50yr	5	7	3	4	1	3	3	1	0	8	12	20	12.1
029N-030N 074W-073W 100yr	5	17	10	7	4	6	6	2	0	18	22	40	12.9
50yr	5	9	5	4	0	3	1	1	0	5	14	19	12.5
029N-030N 073W-072W 100yr	5	12	6	6	3	5	6	1	0	15	17	32	13.0
50yr	5	6	4	2	1	4	1	0	0	6	11	17	12.7
029N-030N 072W-071W 100yr	7	11	6	5	3	5	3	1	0	12	18	30	14.2
50yr	7	6	3	3	2	3	0	1	0	6	13	19	13.3
029N-030N 071W-070W 100yr	7	12	9	3	3	6	5	3	0	17	19	36	14.3
50yr	7	6	4	2	2	4	2	3	0	11	13	24	14.0
029N-030N 070W-069W 100yr	5	13	11	2	6	8	3	0	0	17	18	35	15.2
50yr	5	6	5	1	3	6	1	0	0	10	11	21	15.0
029N-030N 069W-068W 100yr	3	6	6	0	10	6	5	1	0	22	9	31	15.2
50yr	3	1	1	0	7	2	1	0	0	10	4	14	16.6
029N-030N 068W-067W 100yr	2	8	7	1	9	2	4	3	1	19	10	29	13.8
50yr	2	1	0	1	5	2	2	1	0	10	3	13	15.1
029N-030N 067W-066W 100yr	3	8	6	2	7	2	2	3	0	14	11	25	15.3
50yr	3	2	0	2	3	0	1	2	0	6	5	11	15.1
029N-030N 066W-065W 100yr	7	13	7	6	6	3	0	3	0	12	20	32	15.6
50yr	7	7	1	6	2	1	0	1	0	4	14	18	15.8
029N-030N 065W-064W 100yr	3	10	8	2	5	3	3	1	0	12	13	25	16.0
50yr	3	4	2	2	2	1	1	0	0	4	7	11	18.6
029N-030N 064W-063W 100yr	1	9	6	3	4	6	5	0	0	15	10	25	14.9
50yr	1	3	1	2	1	3	2	0	0	6	4	10	15.6
029N-030N 063W-062W 100yr	0	8	5	3	3	4	3	1	0	11	8	19	15.4
50yr	0	1	0	1	2	1	3	1	0	7	1	8	15.8
029N-030N 062W-061W 100yr	2	4	3	1	5	1	1	0	0	7	6	13	13.1
50yr	1	1	1	0	4	1	1	0	0	6	2	8	12.8

Grid Cell	TD	TS	G	S	S1	S2	S3	S4	S5	H	<H	All	Spd
029N-030N 061W-060W 100yr	2	4	2	2	9	1	1	0	0	11	6	17	12.1
50yr	2	2	1	1	7	0	0	0	0	7	4	11	11.6
029N-030N 060W-059W 100yr	1	3	1	2	8	3	2	1	0	14	4	18	13.7
50yr	1	3	1	2	5	1	2	0	0	8	4	12	14.4
029N-030N 059W-058W 100yr	3	5	3	2	3	3	3	0	0	9	8	17	15.4
50yr	3	4	2	2	1	1	0	0	0	2	7	9	11.8
029N-030N 058W-057W 100yr	3	8	6	2	4	1	5	1	0	11	11	22	14.6
50yr	3	6	4	2	2	0	2	1	0	5	9	14	11.1
029N-030N 057W-056W 100yr	3	6	4	2	5	2	1	1	0	9	9	18	17.9
50yr	3	5	3	2	3	0	0	1	0	4	8	12	14.2
029N-030N 056W-055W 100yr	1	6	4	2	4	4	3	3	0	14	7	21	14.0
50yr	1	3	2	1	3	1	3	3	0	10	4	14	13.6
029N-030N 055W-054W 100yr	0	4	3	1	3	2	2	1	0	8	4	12	12.1
50yr	0	2	1	1	3	1	2	1	0	7	2	9	12.6
029N-030N 054W-053W 100yr	0	4	3	1	3	3	1	0	0	7	4	11	13.8
50yr	0	3	2	1	3	2	1	0	0	6	3	9	14.4
029N-030N 053W-052W 100yr	1	4	3	1	3	3	1	0	0	7	5	12	13.3
50yr	1	4	3	1	3	1	1	0	0	5	5	10	13.6
029N-030N 052W-051W 100yr	3	2	0	2	2	1	0	0	0	3	5	8	9.6
50yr	3	2	0	2	2	0	0	0	0	2	5	7	8.4
029N-030N 051W-050W 100yr	2	2	1	1	0	2	0	0	0	2	4	6	10.3
50yr	2	2	1	1	0	2	0	0	0	2	4	6	10.3
029N-030N 050W-049W 100yr	0	4	3	1	2	2	0	0	0	4	4	8	15.2
50yr	0	4	3	1	1	1	0	0	0	2	4	6	15.4
029N-030N 049W-048W 100yr	0	3	3	0	2	2	0	0	0	4	3	7	12.5
50yr	0	3	3	0	0	1	0	0	0	1	3	4	13.5
029N-030N 048W-047W 100yr	0	3	2	1	3	0	0	0	0	3	3	6	14.9
50yr	0	2	2	0	0	0	0	0	0	0	2	2	10.7
029N-030N 047W-046W 100yr	1	5	3	2	4	0	0	0	0	4	6	10	12.1
50yr	1	3	2	1	1	0	0	0	0	1	4	5	11.3
029N-030N 046W-045W 100yr	1	5	3	2	5	1	1	0	0	7	6	13	11.8
50yr	1	3	2	1	2	0	1	0	0	3	4	7	12.2
029N-030N 045W-044W 100yr	0	4	2	2	5	1	0	0	0	6	4	10	12.1
50yr	0	3	1	2	2	0	0	0	0	2	3	5	14.6
029N-030N 044W-043W 100yr	2	2	0	2	1	2	0	0	0	3	4	7	16.5
50yr	2	1	0	1	1	0	0	0	0	1	3	4	22.4
029N-030N 043W-042W 100yr	0	8	4	4	2	0	0	0	0	2	8	10	14.5
50yr	0	5	3	2	2	0	0	0	0	2	5	7	16.0
029N-030N 042W-041W 100yr	0	5	2	3	6	0	0	0	0	6	5	11	16.2
50yr	0	2	1	1	6	0	0	0	0	6	2	8	18.1
029N-030N 041W-040W 100yr	0	3	3	0	5	0	0	0	0	5	3	8	15.6
50yr	0	3	3	0	5	0	0	0	0	5	3	8	15.6
029N-030N 040W-039W 100yr	1	4	2	2	0	0	0	0	0	0	5	5	12.4
50yr	1	3	2	1	0	0	0	0	0	0	4	4	11.9
029N-030N 039W-038W 100yr	1	2	0	2	0	0	0	0	0	0	3	3	20.0
50yr	1	1	0	1	0	0	0	0	0	0	2	2	22.9
029N-030N 038W-037W 100yr	1	1	1	0	1	0	0	0	0	1	2	3	15.0
50yr	1	0	0	0	1	0	0	0	0	1	1	2	14.9

Grid Cell	TD	TS	G	S	S1	S2	S3	S4	S5	H	<H	All	Spd
029N-030N 037W-036W 100yr	0	0	0	0	1	0	0	0	0	1	0	1	14.5
50yr	0	0	0	0	1	0	0	0	0	1	0	1	14.5
029N-030N 035W-034W 100yr	1	0	0	0	0	1	0	0	0	1	1	2	16.5
50yr	1	0	0	0	0	1	0	0	0	1	1	2	16.5
029N-030N 034W-033W 100yr	1	0	0	0	0	1	0	0	0	1	1	2	10.5
50yr	1	0	0	0	0	1	0	0	0	1	1	2	10.5
029N-030N 033W-032W 100yr	1	0	0	0	0	1	0	0	0	1	1	2	9.0
50yr	1	0	0	0	0	1	0	0	0	1	1	2	9.0
029N-030N 032W-031W 100yr	0	0	0	0	0	1	0	0	0	1	0	1	10.4
50yr	0	0	0	0	0	1	0	0	0	1	0	1	10.4
029N-030N 031W-030W 100yr	0	0	0	0	1	0	0	0	0	1	0	1	11.3
50yr	0	0	0	0	1	0	0	0	0	1	0	1	11.3
029N-030N 030W-029W 100yr	0	1	1	0	0	0	0	0	0	0	1	1	6.2
50yr	0	0	0	0	0	0	0	0	0	0	0	0	0.0
029N-030N 029W-028W 100yr	0	2	2	0	0	0	0	0	0	0	2	2	16.9
50yr	0	2	2	0	0	0	0	0	0	0	2	2	16.9

Grid Cell	TD	TS	G	S	S1	S2	S3	S4	S5	H	<H	All	Spd

Grid Cell	TD	TS	G	S	S1	S2	S3	S4	S5	H	<H	All	Spd

030°N to 031°N

030N-031N 105W-104W 100yr	1	0	0	0	0	0	0	0	0	0	1	1	12.4
50yr	1	0	0	0	0	0	0	0	0	0	1	1	12.4
030N-031N 104W-103W 100yr	0	1	1	0	0	0	0	0	0	0	1	1	13.1
50yr	0	1	1	0	0	0	0	0	0	0	1	1	13.1
030N-031N 103W-102W 100yr	2	1	1	0	0	0	0	0	0	0	3	3	16.6
50yr	2	1	1	0	0	0	0	0	0	0	3	3	16.6
030N-031N 102W-101W 100yr	2	1	1	0	0	0	0	0	0	0	3	3	19.8
50yr	2	0	0	0	0	0	0	0	0	0	2	2	19.0
030N-031N 101W-100W 100yr	1	1	1	0	0	0	0	0	0	0	2	2	18.1
50yr	1	0	0	0	0	0	0	0	0	0	1	1	17.3
030N-031N 100W-099W 100yr	1	2	2	0	0	0	0	0	0	0	3	3	15.2
50yr	1	0	0	0	0	0	0	0	0	0	1	1	18.2
030N-031N 099W-098W 100yr	1	2	2	0	0	0	0	0	0	0	3	3	14.5
50yr	0	1	1	0	0	0	0	0	0	0	1	1	17.3
030N-031N 098W-097W 100yr	0	6	3	3	1	0	0	0	0	1	6	7	11.8
50yr	0	2	1	1	1	0	0	0	0	1	2	3	15.8
030N-031N 097W-096W 100yr	4	8	2	6	2	1	0	0	0	3	12	15	8.3
50yr	3	2	1	1	1	0	0	0	0	1	5	6	9.0
030N-031N 096W-095W 100yr	5	8	4	4	3	1	0	1	0	5	13	18	8.0
50yr	5	3	3	0	3	0	0	0	0	3	8	11	7.2
030N-031N 095W-094W 100yr	2	8	6	2	5	0	0	1	0	6	10	16	8.9
50yr	2	5	4	1	4	0	0	0	0	4	7	11	7.8
030N-031N 094W-093W 100yr	2	8	5	3	2	1	0	1	0	4	10	14	9.1
50yr	2	6	3	3	0	0	0	1	0	1	8	9	8.5

Grid Cell	TD	TS	G	S	S1	S2	S3	S4	S5	H	<H	All	Spd
030N-031N 093W-092W 100yr	2	8	6	2	2	1	1	0	0	4	10	14	9.2
50yr	1	3	2	1	1	1	1	0	0	3	4	7	8.8
030N-031N 092W-091W 100yr	1	14	12	2	3	6	0	1	0	10	15	25	11.8
50yr	1	4	3	1	1	3	0	1	0	5	5	10	9.6
030N-031N 091W-090W 100yr	4	17	10	7	2	1	1	0	0	4	21	25	12.4
50yr	2	9	5	4	1	0	1	0	0	2	11	13	11.8
030N-031N 090W-089W 100yr	5	17	10	7	3	0	2	0	1	6	22	28	12.3
50yr	3	5	1	4	1	0	1	0	1	3	8	11	9.9
030N-031N 089W-088W 100yr	2	13	9	4	5	2	2	2	0	11	15	26	10.4
50yr	1	3	0	3	2	1	1	1	0	5	4	9	9.7
030N-031N 088W-087W 100yr	4	14	8	6	7	1	3	0	0	11	18	29	10.5
50yr	3	3	0	3	3	0	1	0	0	4	6	10	10.5
030N-031N 087W-086W 100yr	6	11	6	5	5	1	2	0	0	8	17	25	11.6
50yr	4	5	2	3	3	0	2	0	0	5	9	14	12.7
030N-031N 086W-085W 100yr	6	13	10	3	8	1	0	0	0	9	19	28	11.4
50yr	3	5	4	1	4	1	0	0	0	5	8	13	11.6
030N-031N 085W-084W 100yr	6	15	12	3	6	0	0	0	0	6	21	27	12.0
50yr	4	5	4	1	5	0	0	0	0	5	9	14	12.8
030N-031N 084W-083W 100yr	7	23	15	8	1	1	0	0	0	2	30	32	14.0
50yr	6	7	3	4	0	1	0	0	0	1	13	14	13.9
030N-031N 083W-082W 100yr	8	19	10	9	1	1	0	0	0	2	27	29	16.6
50yr	6	6	3	3	0	1	0	0	0	1	12	13	15.9
030N-031N 082W-081W 100yr	7	21	13	8	1	2	0	0	0	3	28	31	15.9
50yr	6	9	6	3	1	1	0	0	0	2	15	17	14.6
030N-031N 081W-080W 100yr	6	21	16	5	5	3	0	0	0	8	27	35	13.6
50yr	6	7	6	1	3	3	0	0	0	6	13	19	13.0
030N-031N 080W-079W 100yr	6	19	14	5	5	3	1	1	0	10	25	35	13.2
50yr	6	7	4	3	4	2	1	1	0	8	13	21	12.4
030N-031N 079W-078W 100yr	8	15	12	3	6	3	0	3	0	12	23	35	12.7
50yr	8	8	5	3	2	2	0	3	0	7	16	23	13.5
030N-031N 078W-077W 100yr	3	17	14	3	7	5	2	3	0	17	20	37	12.9
50yr	3	10	7	3	3	1	2	2	0	8	13	21	14.7
030N-031N 077W-076W 100yr	2	16	12	4	8	6	3	3	0	20	18	38	13.0
50yr	2	11	7	4	6	2	3	1	0	12	13	25	14.0
030N-031N 076W-075W 100yr	3	16	7	9	7	6	5	2	0	20	19	39	14.0
50yr	3	10	4	6	4	2	4	1	0	11	13	24	15.3
030N-031N 075W-074W 100yr	8	13	6	7	6	4	4	3	0	17	21	38	11.7
50yr	8	9	5	4	3	3	1	1	0	8	17	25	10.9
030N-031N 074W-073W 100yr	3	15	11	4	4	5	6	1	0	16	18	34	11.6
50yr	3	9	6	3	3	3	1	0	0	7	12	19	11.2
030N-031N 073W-072W 100yr	3	12	8	4	7	5	4	1	0	17	15	32	12.8
50yr	3	8	6	2	3	4	3	0	0	10	11	21	11.4
030N-031N 072W-071W 100yr	7	10	8	2	4	7	5	2	0	18	17	35	13.3
50yr	6	8	7	1	2	3	3	1	0	9	14	23	12.1
030N-031N 071W-070W 100yr	1	8	5	3	7	8	7	1	0	23	9	32	14.1
50yr	1	5	3	2	4	3	3	1	0	11	6	17	13.8
030N-031N 070W-069W 100yr	4	12	9	3	4	10	2	2	0	18	16	34	14.7
50yr	4	6	4	2	2	4	1	0	0	7	10	17	14.5

Grid Cell	TD	TS	G	S	S1	S2	S3	S4	S5	H	<H	All	Spd
030N-031N 069W-068W 100yr	1	9	7	2	2	7	7	2	0	18	10	28	16.5
50yr	1	2	1	1	2	2	4	0	0	8	3	11	17.1
030N-031N 068W-067W 100yr	2	10	7	3	7	4	5	2	1	19	12	31	14.5
50yr	2	4	1	3	5	4	2	0	0	11	6	17	14.9
030N-031N 067W-066W 100yr	4	9	6	3	8	5	1	0	0	14	13	27	13.8
50yr	4	4	1	3	5	1	0	0	0	6	8	14	16.0
030N-031N 066W-065W 100yr	5	8	7	1	10	4	2	3	0	19	13	32	14.6
50yr	5	2	1	1	5	0	0	1	0	6	7	13	14.9
030N-031N 065W-064W 100yr	2	8	7	1	12	3	3	1	0	19	10	29	15.9
50yr	2	4	4	0	6	1	1	0	0	8	6	14	17.1
030N-031N 064W-063W 100yr	3	11	8	3	7	7	3	0	0	17	14	31	14.2
50yr	3	4	3	1	4	5	0	0	0	9	7	16	14.5
030N-031N 063W-062W 100yr	0	12	11	1	4	7	2	0	0	13	12	25	15.9
50yr	0	6	5	1	4	4	2	0	0	10	6	16	16.5
030N-031N 062W-061W 100yr	1	9	7	2	4	3	3	0	0	10	10	20	16.8
50yr	0	4	3	1	4	2	3	0	0	9	4	13	15.7
030N-031N 061W-060W 100yr	2	10	8	2	6	3	2	0	0	11	12	23	16.5
50yr	2	4	3	1	6	1	0	0	0	7	6	13	15.6
030N-031N 060W-059W 100yr	2	5	5	0	8	4	1	1	0	14	7	21	16.3
50yr	2	3	3	0	6	3	1	0	0	10	5	15	16.3
030N-031N 059W-058W 100yr	1	4	4	0	6	4	2	2	0	14	5	19	15.0
50yr	1	2	2	0	5	1	2	1	0	9	3	12	14.1
030N-031N 058W-057W 100yr	1	6	6	0	3	1	3	1	0	8	7	15	12.6
50yr	1	4	4	0	3	0	2	1	0	6	5	11	11.3
030N-031N 057W-056W 100yr	2	7	4	3	5	2	2	1	0	10	9	19	17.9
50yr	2	5	3	2	2	0	2	1	0	5	7	12	12.4
030N-031N 056W-055W 100yr	2	7	3	4	8	3	3	1	0	15	9	24	17.7
50yr	2	4	1	3	4	0	3	1	0	8	6	14	13.1
030N-031N 055W-054W 100yr	2	5	2	3	6	3	1	0	0	10	7	17	15.0
50yr	2	4	1	3	4	2	1	0	0	7	6	13	12.4
030N-031N 054W-053W 100yr	1	3	1	2	4	3	1	0	0	8	4	12	13.4
50yr	1	2	0	2	3	3	1	0	0	7	3	10	13.3
030N-031N 053W-052W 100yr	1	2	2	0	6	2	1	0	0	9	3	12	12.8
50yr	1	1	1	0	5	1	1	0	0	7	2	9	12.6
030N-031N 052W-051W 100yr	1	4	2	2	5	3	1	0	0	9	5	14	13.0
50yr	1	3	1	2	4	1	1	0	0	6	4	10	12.0
030N-031N 051W-050W 100yr	2	4	2	2	1	3	0	0	0	4	6	10	14.0
50yr	2	3	1	2	0	3	0	0	0	3	5	8	13.0
030N-031N 050W-049W 100yr	1	4	2	2	4	1	0	0	0	5	5	10	12.2
50yr	1	3	1	2	2	1	0	0	0	3	4	7	11.4
030N-031N 049W-048W 100yr	1	1	1	0	2	1	0	0	0	3	2	5	10.6
50yr	1	1	1	0	1	0	0	0	0	1	2	3	9.4
030N-031N 048W-047W 100yr	0	3	1	2	4	1	0	0	0	5	3	8	16.6
50yr	0	3	1	2	1	0	0	0	0	1	3	4	12.4
030N-031N 047W-046W 100yr	0	3	1	2	5	1	0	0	0	6	3	9	11.2
50yr	0	3	1	2	3	0	0	0	0	3	3	6	8.8
030N-031N 046W-045W 100yr	2	2	1	1	3	1	1	0	0	5	4	9	12.8
50yr	2	2	1	1	1	0	1	0	0	2	4	6	11.1

Grid Cell	TD	TS	G	S	S1	S2	S3	S4	S5	H	<H	All	Spd
030N-031N 045W-044W 100yr	2	4	2	2	2	0	0	0	0	2	6	8	10.5
50yr	2	3	1	2	1	0	0	0	0	1	5	6	10.8
030N-031N 044W-043W 100yr	3	7	4	3	3	1	0	0	0	4	10	14	12.8
50yr	3	4	2	2	2	0	0	0	0	2	7	9	14.8
030N-031N 043W-042W 100yr	2	5	3	2	4	1	0	0	0	5	7	12	12.8
50yr	2	2	1	1	3	0	0	0	0	3	4	7	14.8
030N-031N 042W-041W 100yr	2	4	2	2	3	0	0	0	0	3	6	9	9.3
50yr	2	0	0	0	3	0	0	0	0	3	2	5	9.6
030N-031N 041W-040W 100yr	2	6	4	2	6	0	0	0	0	6	8	14	13.0
50yr	2	2	2	0	6	0	0	0	0	6	4	10	14.5
030N-031N 040W-039W 100yr	1	7	5	2	2	0	0	0	0	2	8	10	13.5
50yr	1	3	3	0	2	0	0	0	0	2	4	6	15.7
030N-031N 039W-038W 100yr	0	3	2	1	2	0	0	0	0	2	3	5	20.4
50yr	0	2	1	1	2	0	0	0	0	2	2	4	24.3
030N-031N 038W-037W 100yr	0	3	3	0	0	0	0	0	0	0	3	3	13.2
50yr	0	1	1	0	0	0	0	0	0	0	1	1	19.2
030N-031N 037W-036W 100yr	0	2	2	0	1	1	0	0	0	2	2	4	15.8
50yr	0	1	1	0	1	1	0	0	0	2	1	3	15.8
030N-031N 036W-035W 100yr	0	0	0	0	1	1	0	0	0	2	0	2	15.4
50yr	0	0	0	0	1	1	0	0	0	2	0	2	15.4
030N-031N 035W-034W 100yr	1	0	0	0	0	1	0	0	0	1	1	2	17.9
50yr	1	0	0	0	0	1	0	0	0	1	1	2	17.9
030N-031N 034W-033W 100yr	1	0	0	0	0	0	0	0	0	0	1	1	6.5
50yr	1	0	0	0	0	0	0	0	0	0	1	1	6.5
030N-031N 033W-032W 100yr	1	0	0	0	0	0	0	0	0	0	1	1	6.0
50yr	1	0	0	0	0	0	0	0	0	0	1	1	6.0
030N-031N 031W-030W 100yr	0	0	0	0	1	0	0	0	0	1	0	1	12.8
50yr	0	0	0	0	1	0	0	0	0	1	0	1	12.8
030N-031N 030W-029W 100yr	0	2	1	1	0	0	0	0	0	0	2	2	9.8
50yr	0	1	0	1	0	0	0	0	0	0	1	1	14.3
030N-031N 029W-028W 100yr	0	2	2	0	0	0	0	0	0	0	2	2	17.4
50yr	0	2	2	0	0	0	0	0	0	0	2	2	17.4
030N-031N 028W-027W 100yr	0	1	1	0	0	0	0	0	0	0	1	1	15.6
50yr	0	1	1	0	0	0	0	0	0	0	1	1	15.6

031°N to 032°N

031N-032N 107W-106W 100yr	1	0	0	0	0	0	0	0	0	0	1	1	13.0
50yr	1	0	0	0	0	0	0	0	0	0	1	1	13.0
031N-032N 106W-105W 100yr	1	0	0	0	0	0	0	0	0	0	1	1	11.8
50yr	1	0	0	0	0	0	0	0	0	0	1	1	11.8
031N-032N 105W-104W 100yr	1	0	0	0	0	0	0	0	0	0	1	1	10.5
50yr	1	0	0	0	0	0	0	0	0	0	1	1	10.5
031N-032N 103W-102W 100yr	1	0	0	0	0	0	0	0	0	0	1	1	13.0
50yr	1	0	0	0	0	0	0	0	0	0	1	1	13.0
031N-032N 102W-101W 100yr	1	1	1	0	0	0	0	0	0	0	2	2	22.4
50yr	1	0	0	0	0	0	0	0	0	0	1	1	23.2

Grid Cell		TD	TS	G	S	S1	S2	S3	S4	S5	H	<H	All	Spd
031N-032N 101W-100W	100yr	2	0	0	0	0	0	0	0	0	0	2	2	17.4
	50yr	1	0	0	0	0	0	0	0	0	0	1	1	21.7
031N-032N 100W-099W	100yr	0	1	1	0	0	0	0	0	0	0	1	1	12.4
	50yr	0	0	0	0	0	0	0	0	0	0	0	0	0.0
031N-032N 098W-097W	100yr	5	6	5	1	0	0	0	0	0	0	11	11	10.0
	50yr	5	2	1	1	0	0	0	0	0	0	7	7	11.9
031N-032N 097W-096W	100yr	7	10	6	4	0	0	0	0	0	0	17	17	8.9
	50yr	7	2	2	0	0	0	0	0	0	0	9	9	8.9
031N-032N 096W-095W	100yr	8	3	3	0	0	0	0	0	0	0	11	11	9.9
	50yr	6	1	1	0	0	0	0	0	0	0	7	7	8.5
031N-032N 095W-094W	100yr	2	11	8	3	0	0	0	0	0	0	13	13	12.3
	50yr	2	4	4	0	0	0	0	0	0	0	6	6	9.8
031N-032N 094W-093W	100yr	5	6	3	3	0	0	0	0	0	0	11	11	11.1
	50yr	5	2	1	1	0	0	0	0	0	0	7	7	10.0
031N-032N 093W-092W	100yr	3	6	3	3	2	0	0	0	0	2	9	11	11.7
	50yr	2	3	2	1	1	0	0	0	0	1	5	6	11.7
031N-032N 092W-091W	100yr	3	9	5	4	2	1	0	0	0	3	12	15	13.1
	50yr	2	4	1	3	1	0	0	0	0	1	6	7	10.7
031N-032N 091W-090W	100yr	7	8	6	2	1	1	1	0	0	3	15	18	12.6
	50yr	5	4	3	1	1	0	1	0	0	2	9	11	11.4
031N-032N 090W-089W	100yr	7	15	8	7	0	1	1	0	0	2	22	24	13.0
	50yr	3	3	2	1	0	0	1	0	0	1	6	7	10.0
031N-032N 089W-088W	100yr	5	10	9	1	4	1	0	1	0	6	15	21	11.4
	50yr	2	2	2	0	1	1	0	0	0	2	4	6	8.6
031N-032N 088W-087W	100yr	6	9	5	4	3	0	1	0	0	4	15	19	11.4
	50yr	3	2	0	2	1	0	0	0	0	1	5	6	10.0
031N-032N 087W-086W	100yr	4	11	7	4	0	0	2	0	0	2	15	17	12.6
	50yr	2	4	2	2	0	0	2	0	0	2	6	8	14.9
031N-032N 086W-085W	100yr	3	14	12	2	2	0	1	0	0	3	17	20	13.3
	50yr	1	5	4	1	0	0	1	0	0	1	6	7	14.1
031N-032N 085W-084W	100yr	5	17	12	5	2	0	0	0	0	2	22	24	14.3
	50yr	3	6	4	2	2	0	0	0	0	2	9	11	14.2
031N-032N 084W-083W	100yr	6	20	15	5	3	0	0	0	0	3	26	29	14.3
	50yr	4	6	4	2	2	0	0	0	0	2	10	12	12.9
031N-032N 083W-082W	100yr	4	24	18	6	2	0	0	0	0	2	28	30	16.6
	50yr	3	12	9	3	1	0	0	0	0	1	15	16	16.1
031N-032N 082W-081W	100yr	7	21	15	6	2	1	0	0	0	3	28	31	16.3
	50yr	6	11	8	3	0	1	0	0	0	1	17	18	15.5
031N-032N 081W-080W	100yr	7	20	14	6	4	1	0	1	0	6	27	33	14.7
	50yr	6	10	9	1	2	1	0	1	0	4	16	20	13.9
031N-032N 080W-079W	100yr	6	14	12	2	7	4	0	2	0	13	20	33	12.8
	50yr	6	6	4	2	3	2	0	2	0	7	12	19	13.1
031N-032N 079W-078W	100yr	9	10	8	2	8	9	1	2	0	20	19	39	13.0
	50yr	9	5	4	1	2	5	1	2	0	10	14	24	13.6
031N-032N 078W-077W	100yr	6	10	8	2	3	4	3	0	0	10	16	26	13.3
	50yr	6	5	4	1	2	1	3	0	0	6	11	17	12.8
031N-032N 077W-076W	100yr	4	13	10	3	5	6	4	3	0	18	17	35	13.4
	50yr	4	6	4	2	4	3	3	1	0	11	10	21	13.3

Grid Cell	TD	TS	G	S	S1	S2	S3	S4	S5	H	<H	All	Spd
031N-032N 076W-075W 100yr	5	16	7	9	7	5	4	1	0	17	21	38	13.0
50yr	5	7	2	5	3	2	2	0	0	7	12	19	14.6
031N-032N 075W-074W 100yr	7	12	6	6	8	7	3	1	0	19	19	38	13.4
50yr	7	6	3	3	3	4	1	0	0	8	13	21	14.0
031N-032N 074W-073W 100yr	6	16	12	4	6	5	5	1	0	17	22	39	12.9
50yr	6	11	7	4	2	3	3	0	0	8	17	25	12.9
031N-032N 073W-072W 100yr	7	20	12	8	7	6	5	2	0	20	27	47	12.8
50yr	7	15	9	6	4	3	3	1	0	11	22	33	12.4
031N-032N 072W-071W 100yr	6	19	12	7	5	4	4	2	0	15	25	40	12.9
50yr	5	17	11	6	3	1	2	1	0	7	22	29	12.3
031N-032N 071W-070W 100yr	3	10	5	5	4	7	4	3	0	18	13	31	13.8
50yr	2	7	4	3	3	3	3	0	0	9	9	18	14.4
031N-032N 070W-069W 100yr	6	10	6	4	2	11	3	1	0	17	16	33	15.2
50yr	6	5	2	3	2	4	2	0	0	8	11	19	16.0
031N-032N 069W-068W 100yr	4	12	9	3	3	12	5	0	0	20	16	36	15.4
50yr	4	2	1	1	2	3	3	0	0	8	6	14	15.9
031N-032N 068W-067W 100yr	2	7	6	1	3	7	7	2	0	19	9	28	14.0
50yr	1	1	0	1	3	2	2	0	0	7	2	9	15.0
031N-032N 067W-066W 100yr	2	6	6	0	8	8	4	1	0	21	8	29	14.7
50yr	1	3	3	0	7	3	1	0	0	11	4	15	16.1
031N-032N 066W-065W 100yr	3	7	6	1	10	5	3	2	0	20	10	30	15.2
50yr	3	4	3	1	8	1	0	0	0	9	7	16	14.9
031N-032N 065W-064W 100yr	2	8	7	1	8	4	2	1	0	15	10	25	17.3
50yr	2	4	4	0	3	2	0	0	0	5	6	11	16.0
031N-032N 064W-063W 100yr	1	12	10	2	4	7	2	1	0	14	13	27	16.9
50yr	1	6	6	0	1	4	0	0	0	5	7	12	17.4
031N-032N 063W-062W 100yr	0	12	10	2	5	7	2	0	0	14	12	26	15.9
50yr	0	6	6	0	3	4	0	0	0	7	6	13	16.1
031N-032N 062W-061W 100yr	2	7	6	1	3	6	5	0	0	14	9	23	16.6
50yr	1	4	4	0	2	3	3	0	0	8	5	13	17.1
031N-032N 061W-060W 100yr	2	10	7	3	4	4	5	0	0	13	12	25	16.0
50yr	2	6	4	2	4	3	3	0	0	10	8	18	15.6
031N-032N 060W-059W 100yr	1	8	7	1	4	2	2	0	0	8	9	17	19.5
50yr	1	6	5	1	4	2	2	0	0	8	7	15	17.9
031N-032N 059W-058W 100yr	1	7	6	1	8	3	2	2	0	15	8	23	16.4
50yr	1	6	5	1	7	1	2	1	0	11	7	18	16.2
031N-032N 058W-057W 100yr	0	9	5	4	5	2	2	0	0	9	9	18	16.1
50yr	0	7	4	3	5	1	1	0	0	7	7	14	15.6
031N-032N 057W-056W 100yr	2	8	3	5	5	1	3	1	0	10	10	20	13.7
50yr	2	7	3	4	5	0	2	1	0	8	9	17	13.2
031N-032N 056W-055W 100yr	3	5	3	2	8	3	0	0	0	11	8	19	16.3
50yr	3	4	2	2	6	2	0	0	0	8	7	15	13.1
031N-032N 055W-054W 100yr	2	4	1	3	6	3	1	0	0	10	6	16	16.1
50yr	2	3	0	3	4	2	1	0	0	7	5	12	14.3
031N-032N 054W-053W 100yr	2	5	1	4	5	1	1	0	0	7	7	14	15.5
50yr	2	4	0	4	3	1	1	0	0	5	6	11	13.9
031N-032N 053W-052W 100yr	3	4	1	3	5	0	0	0	0	5	7	12	13.9
50yr	2	2	0	2	4	0	0	0	0	4	4	8	11.9

Grid Cell		TD	TS	G	S	S1	S2	S3	S4	S5	H	<H	All	Spd
031N-032N 052W-051W	100yr	3	6	1	5	5	2	0	0	0	7	9	16	15.2
	50yr	2	5	1	4	4	0	0	0	0	4	7	11	13.3
031N-032N 051W-050W	100yr	2	5	2	3	3	1	0	0	0	4	7	11	20.2
	50yr	1	5	2	3	2	1	0	0	0	3	6	9	18.1
031N-032N 050W-049W	100yr	0	4	1	3	3	2	0	0	0	5	4	9	20.9
	50yr	0	4	1	3	1	2	0	0	0	3	4	7	18.5
031N-032N 049W-048W	100yr	0	3	1	2	7	2	0	0	0	9	3	12	16.6
	50yr	0	3	1	2	3	2	0	0	0	5	3	8	14.1
031N-032N 048W-047W	100yr	0	5	1	4	6	3	0	0	0	9	5	14	19.2
	50yr	0	4	1	3	3	1	0	0	0	4	4	8	17.3
031N-032N 047W-046W	100yr	0	2	0	2	4	1	0	0	0	5	2	7	15.9
	50yr	0	1	0	1	2	0	0	0	0	2	1	3	14.9
031N-032N 046W-045W	100yr	0	3	0	3	5	1	1	0	0	7	3	10	15.8
	50yr	0	2	0	2	2	0	1	0	0	3	2	5	14.8
031N-032N 045W-044W	100yr	0	5	2	3	2	0	0	0	0	2	5	7	15.1
	50yr	0	3	1	2	2	0	0	0	0	2	3	5	15.4
031N-032N 044W-043W	100yr	2	7	3	4	3	1	0	0	0	4	9	13	14.9
	50yr	2	5	2	3	3	0	0	0	0	3	7	10	15.5
031N-032N 043W-042W	100yr	2	4	2	2	5	2	0	0	0	7	6	13	12.3
	50yr	2	3	2	1	4	1	0	0	0	5	5	10	12.9
031N-032N 042W-041W	100yr	3	4	2	2	3	1	0	0	0	4	7	11	12.9
	50yr	3	3	2	1	3	0	0	0	0	3	6	9	13.7
031N-032N 041W-040W	100yr	2	2	2	0	3	2	0	0	0	5	4	9	12.9
	50yr	2	2	2	0	3	1	0	0	0	4	4	8	13.4
031N-032N 040W-039W	100yr	0	4	1	3	2	1	0	0	0	3	4	7	14.0
	50yr	0	1	1	0	2	1	0	0	0	3	1	4	15.3
031N-032N 039W-038W	100yr	0	4	0	4	2	1	0	0	0	3	4	7	18.4
	50yr	0	1	0	1	2	1	0	0	0	3	1	4	23.1
031N-032N 038W-037W	100yr	0	3	1	2	2	1	0	0	0	3	3	6	16.3
	50yr	0	0	0	0	2	1	0	0	0	3	0	3	21.1
031N-032N 037W-036W	100yr	0	3	2	1	0	1	0	0	0	1	3	4	16.8
	50yr	0	1	1	0	0	1	0	0	0	1	1	2	15.7
031N-032N 036W-035W	100yr	0	2	2	0	1	0	0	0	0	1	2	3	16.2
	50yr	0	1	1	0	1	0	0	0	0	1	1	2	16.4
031N-032N 035W-034W	100yr	1	2	2	0	1	0	0	0	0	1	3	4	16.0
	50yr	1	2	2	0	1	0	0	0	0	1	3	4	16.0
031N-032N 034W-033W	100yr	0	2	2	0	0	0	0	0	0	0	2	2	13.5
	50yr	0	2	2	0	0	0	0	0	0	0	2	2	13.5
031N-032N 032W-031W	100yr	1	0	0	0	0	0	0	0	0	0	1	1	3.0
	50yr	1	0	0	0	0	0	0	0	0	0	1	1	3.0
031N-032N 030W-029W	100yr	1	1	0	1	0	0	0	0	0	0	2	2	10.0
	50yr	0	1	0	1	0	0	0	0	0	0	1	1	15.0
031N-032N 029W-028W	100yr	0	2	1	1	0	0	0	0	0	0	2	2	18.1
	50yr	0	2	1	1	0	0	0	0	0	0	2	2	18.1
031N-032N 028W-027W	100yr	0	1	1	0	0	0	0	0	0	0	1	1	15.1
	50yr	0	1	1	0	0	0	0	0	0	0	1	1	15.1
031N-032N 023W-022W	100yr	1	0	0	0	0	0	0	0	0	0	1	1	25.2
	50yr	0	0	0	0	0	0	0	0	0	0	0	0	0.0

032°N to 033°N

Grid Cell	TD	TS	G	S	S1	S2	S3	S4	S5	H	<H	All	Spd
032N-033N 108W-107W 100yr	1	0	0	0	0	0	0	0	0	0	1	1	13.0
50yr	1	0	0	0	0	0	0	0	0	0	1	1	13.0
032N-033N 107W-106W 100yr	1	0	0	0	0	0	0	0	0	0	1	1	13.0
50yr	1	0	0	0	0	0	0	0	0	0	1	1	13.0
032N-033N 102W-101W 100yr	1	0	0	0	0	0	0	0	0	0	1	1	13.0
50yr	0	0	0	0	0	0	0	0	0	0	0	0	0.0
032N-033N 101W-100W 100yr	2	0	0	0	0	0	0	0	0	0	2	2	17.4
50yr	1	0	0	0	0	0	0	0	0	0	1	1	21.7
032N-033N 100W-099W 100yr	1	0	0	0	0	0	0	0	0	0	1	1	21.7
50yr	1	0	0	0	0	0	0	0	0	0	1	1	21.7
032N-033N 099W-098W 100yr	2	0	0	0	0	0	0	0	0	0	2	2	7.4
50yr	1	0	0	0	0	0	0	0	0	0	1	1	2.2
032N-033N 098W-097W 100yr	10	2	2	0	0	0	0	0	0	0	12	12	10.0
50yr	6	2	2	0	0	0	0	0	0	0	8	8	11.4
032N-033N 097W-096W 100yr	6	3	3	0	0	0	0	0	0	0	9	9	11.3
50yr	4	0	0	0	0	0	0	0	0	0	4	4	10.1
032N-033N 096W-095W 100yr	8	5	5	0	0	0	0	0	0	0	13	13	10.9
50yr	4	1	1	0	0	0	0	0	0	0	5	5	10.8
032N-033N 095W-094W 100yr	4	7	7	0	0	0	0	0	0	0	11	11	12.7
50yr	4	2	2	0	0	0	0	0	0	0	6	6	11.5
032N-033N 094W-093W 100yr	7	2	1	1	0	0	0	0	0	0	9	9	12.2
50yr	6	0	0	0	0	0	0	0	0	0	6	6	10.9
032N-033N 093W-092W 100yr	6	3	1	2	2	0	0	0	0	2	9	11	11.1
50yr	4	3	1	2	1	0	0	0	0	1	7	8	11.6
032N-033N 092W-091W 100yr	4	7	5	2	2	0	0	0	0	2	11	13	13.6
50yr	2	4	3	1	1	0	0	0	0	1	6	7	11.4
032N-033N 091W-090W 100yr	4	9	7	2	0	0	1	0	0	1	13	14	12.9
50yr	2	4	4	0	0	0	1	0	0	1	6	7	11.0
032N-033N 090W-089W 100yr	9	13	7	6	0	0	1	0	0	1	22	23	11.5
50yr	5	3	3	0	0	0	1	0	0	1	8	9	10.0
032N-033N 089W-088W 100yr	7	9	5	4	0	1	0	0	0	1	16	17	12.2
50yr	2	3	3	0	0	1	0	0	0	1	5	6	10.7
032N-033N 088W-087W 100yr	8	3	3	0	2	0	0	0	0	2	11	13	11.1
50yr	3	0	0	0	0	0	0	0	0	0	3	3	6.0
032N-033N 087W-086W 100yr	5	5	5	0	1	0	0	0	0	1	10	11	12.9
50yr	3	1	1	0	1	0	0	0	0	1	4	5	12.2
032N-033N 086W-085W 100yr	6	8	8	0	1	0	1	0	0	2	14	16	13.4
50yr	3	0	0	0	0	0	1	0	0	1	3	4	15.9
032N-033N 085W-084W 100yr	10	4	4	0	0	0	0	0	0	0	14	14	12.0
50yr	8	1	1	0	0	0	0	0	0	0	9	9	12.0
032N-033N 084W-083W 100yr	7	12	11	1	0	0	0	0	0	0	19	19	13.6
50yr	6	2	2	0	0	0	0	0	0	0	8	8	12.5
032N-033N 083W-082W 100yr	8	16	12	4	1	0	0	0	0	1	24	25	15.1
50yr	5	5	4	1	1	0	0	0	0	1	10	11	13.2

Grid Cell	TD	TS	G	S	S1	S2	S3	S4	S5	H	<H	All	Spd
032N-033N 082W-081W 100yr	5	22	18	4	5	0	0	0	0	5	27	32	17.3
50yr	5	11	10	1	2	0	0	0	0	2	16	18	15.8
032N-033N 081W-080W 100yr	7	25	18	7	5	1	0	1	0	7	32	39	17.3
50yr	6	14	13	1	2	1	0	1	0	4	20	24	16.8
032N-033N 080W-079W 100yr	7	20	17	3	6	2	0	1	0	9	27	36	15.3
50yr	6	9	8	1	3	1	0	1	0	5	15	20	14.3
032N-033N 079W-078W 100yr	8	20	17	3	7	8	2	1	0	18	28	46	14.6
50yr	7	10	9	1	4	5	2	1	0	12	17	29	13.8
032N-033N 078W-077W 100yr	7	17	10	7	6	3	3	0	0	12	24	36	13.1
50yr	7	10	6	4	3	3	3	0	0	9	17	26	13.4
032N-033N 077W-076W 100yr	8	9	5	4	7	6	4	1	0	18	17	35	13.3
50yr	8	5	3	2	3	5	3	0	0	11	13	24	13.8
032N-033N 076W-075W 100yr	4	12	7	5	5	6	5	2	0	18	16	34	13.3
50yr	4	6	2	4	2	4	3	0	0	9	10	19	14.0
032N-033N 075W-074W 100yr	4	14	8	6	8	3	2	2	0	15	18	33	14.3
50yr	4	6	3	3	3	1	1	0	0	5	10	15	16.0
032N-033N 074W-073W 100yr	4	13	9	4	10	4	1	2	0	17	17	34	13.0
50yr	4	6	3	3	3	2	0	1	0	6	10	16	14.2
032N-033N 073W-072W 100yr	6	18	12	6	11	5	5	3	0	24	24	48	14.0
50yr	4	11	7	4	6	3	2	1	0	12	15	27	14.7
032N-033N 072W-071W 100yr	5	24	13	11	5	6	4	2	0	17	29	46	14.0
50yr	4	20	10	10	1	3	2	0	0	6	24	30	13.9
032N-033N 071W-070W 100yr	5	22	12	10	2	4	5	3	0	14	27	41	13.5
50yr	4	18	9	9	1	3	3	0	0	7	22	29	14.5
032N-033N 070W-069W 100yr	5	14	9	5	3	6	4	2	0	15	19	34	15.9
50yr	5	12	8	4	3	3	3	0	0	9	17	26	16.6
032N-033N 069W-068W 100yr	5	15	8	7	4	10	1	0	0	15	20	35	16.3
50yr	5	7	2	5	3	3	1	0	0	7	12	19	14.9
032N-033N 068W-067W 100yr	3	13	10	3	3	6	2	1	0	12	16	28	15.7
50yr	3	3	2	1	3	1	1	0	0	5	6	11	13.2
032N-033N 067W-066W 100yr	2	7	5	2	2	7	6	0	0	15	9	24	14.8
50yr	2	3	2	1	2	2	2	0	0	6	5	11	15.2
032N-033N 066W-065W 100yr	5	7	2	5	5	6	4	2	0	17	12	29	16.7
50yr	5	4	1	3	5	2	1	0	0	8	9	17	17.8
032N-033N 065W-064W 100yr	4	13	9	4	2	4	2	2	0	10	17	27	18.1
50yr	4	9	6	3	2	3	0	0	0	5	13	18	16.9
032N-033N 064W-063W 100yr	2	13	10	3	3	4	3	3	0	13	15	28	17.4
50yr	2	9	6	3	1	2	0	0	0	3	11	14	18.6
032N-033N 063W-062W 100yr	2	14	11	3	6	5	3	1	0	15	16	31	15.1
50yr	1	9	7	2	2	3	0	0	0	5	10	15	15.8
032N-033N 062W-061W 100yr	2	12	6	6	5	6	4	0	0	15	14	29	16.3
50yr	1	5	3	2	3	4	0	0	0	7	6	13	16.5
032N-033N 061W-060W 100yr	2	8	4	4	5	7	4	0	0	16	10	26	17.2
50yr	2	4	2	2	3	4	3	0	0	10	6	16	17.9
032N-033N 060W-059W 100yr	2	7	5	2	6	7	4	0	0	17	9	26	18.6
50yr	2	4	3	1	4	5	4	0	0	13	6	19	17.6
032N-033N 059W-058W 100yr	1	6	5	1	5	4	2	2	0	13	7	20	19.3
50yr	1	4	3	1	3	2	2	1	0	8	5	13	18.0

Grid Cell	TD	TS	G	S	S1	S2	S3	S4	S5	H	<H	All	Spd
032N-033N 058W-057W 100yr	2	7	5	2	6	8	1	2	0	17	9	26	15.7
50yr	2	5	4	1	4	4	1	1	0	10	7	17	14.8
032N-033N 057W-056W 100yr	1	3	2	1	6	6	3	1	0	16	4	20	15.0
50yr	1	2	1	1	5	4	2	1	0	12	3	15	13.7
032N-033N 056W-055W 100yr	2	5	4	1	4	5	1	0	0	10	7	17	14.4
50yr	2	3	2	1	2	4	1	0	0	7	5	12	12.5
032N-033N 055W-054W 100yr	1	4	3	1	6	4	0	0	0	10	5	15	15.0
50yr	1	3	2	1	5	2	0	0	0	7	4	11	14.7
032N-033N 054W-053W 100yr	1	4	1	3	7	0	1	0	0	8	5	13	15.3
50yr	1	4	1	3	4	0	1	0	0	5	5	10	14.4
032N-033N 053W-052W 100yr	1	6	2	4	7	0	1	0	0	8	7	15	12.6
50yr	1	4	1	3	4	0	1	0	0	5	5	10	12.0
032N-033N 052W-051W 100yr	3	5	2	3	5	2	0	0	0	7	8	15	13.9
50yr	3	4	1	3	4	0	0	0	0	4	7	11	12.3
032N-033N 051W-050W 100yr	1	6	3	3	5	1	0	0	0	6	7	13	15.1
50yr	1	6	3	3	4	0	0	0	0	4	7	11	14.4
032N-033N 050W-049W 100yr	1	4	2	2	5	1	0	0	0	6	5	11	15.1
50yr	1	4	2	2	4	1	0	0	0	5	5	10	14.2
032N-033N 049W-048W 100yr	0	4	3	1	7	1	0	0	0	8	4	12	12.0
50yr	0	4	3	1	5	1	0	0	0	6	4	10	11.7
032N-033N 048W-047W 100yr	0	4	2	2	3	2	0	0	0	5	4	9	19.9
50yr	0	4	2	2	2	1	0	0	0	3	4	7	17.6
032N-033N 047W-046W 100yr	0	2	1	1	3	1	0	0	0	4	2	6	17.9
50yr	0	1	0	1	3	0	0	0	0	3	1	4	19.1
032N-033N 046W-045W 100yr	0	5	3	2	3	3	1	0	0	7	5	12	14.0
50yr	0	4	2	2	1	1	1	0	0	3	4	7	13.9
032N-033N 045W-044W 100yr	0	5	3	2	2	1	0	0	0	3	5	8	18.7
50yr	0	4	2	2	1	0	0	0	0	1	4	5	22.0
032N-033N 044W-043W 100yr	0	4	1	3	2	1	0	0	0	3	4	7	21.2
50yr	0	4	1	3	2	1	0	0	0	3	4	7	21.2
032N-033N 043W-042W 100yr	2	2	0	2	5	2	0	0	0	7	4	11	13.8
50yr	2	1	0	1	5	1	0	0	0	6	3	9	14.0
032N-033N 042W-041W 100yr	1	3	0	3	5	1	0	0	0	6	4	10	11.5
50yr	1	2	0	2	5	1	0	0	0	6	3	9	11.6
032N-033N 041W-040W 100yr	1	4	2	2	4	2	0	0	0	6	5	11	11.4
50yr	1	3	2	1	4	1	0	0	0	5	4	9	12.0
032N-033N 040W-039W 100yr	0	4	2	2	3	1	0	0	0	4	4	8	13.7
50yr	0	3	2	1	3	0	0	0	0	3	3	6	15.5
032N-033N 039W-038W 100yr	0	3	1	2	1	1	0	0	0	2	3	5	19.3
50yr	0	3	1	2	1	0	0	0	0	1	3	4	21.0
032N-033N 038W-037W 100yr	0	3	0	3	2	1	0	0	0	3	3	6	20.8
50yr	0	2	0	2	2	0	0	0	0	2	2	4	25.7
032N-033N 037W-036W 100yr	0	3	0	3	2	0	0	0	0	2	3	5	19.9
50yr	0	1	0	1	2	0	0	0	0	2	1	3	22.4
032N-033N 036W-035W 100yr	0	4	1	3	1	0	0	0	0	1	4	5	20.2
50yr	0	1	0	1	1	0	0	0	0	1	1	2	25.1
032N-033N 035W-034W 100yr	1	4	3	1	1	0	0	0	0	1	5	6	16.5
50yr	1	2	2	0	1	0	0	0	0	1	3	4	15.7

Grid Cell	TD	TS	G	S	S1	S2	S3	S4	S5	H	<H	All	Spd
032N-033N 034W-033W 100yr	0	2	2	0	1	0	0	0	0	1	2	3	14.2
50yr	0	2	2	0	1	0	0	0	0	1	2	3	14.2
032N-033N 033W-032W 100yr	0	1	1	0	0	0	0	0	0	0	1	1	18.8
50yr	0	1	1	0	0	0	0	0	0	0	1	1	18.8
032N-033N 032W-031W 100yr	1	1	1	0	0	0	0	0	0	0	2	2	11.1
50yr	1	1	1	0	0	0	0	0	0	0	2	2	11.1
032N-033N 031W-030W 100yr	0	1	1	0	0	0	0	0	0	0	1	1	19.0
50yr	0	1	1	0	0	0	0	0	0	0	1	1	19.0
032N-033N 030W-029W 100yr	0	1	1	0	0	0	0	0	0	0	1	1	19.0
50yr	0	1	1	0	0	0	0	0	0	0	1	1	19.0
032N-033N 029W-028W 100yr	0	2	1	1	0	0	0	0	0	0	2	2	18.2
50yr	0	2	1	1	0	0	0	0	0	0	2	2	18.2
032N-033N 028W-027W 100yr	0	3	2	1	0	0	0	0	0	0	3	3	16.7
50yr	0	3	2	1	0	0	0	0	0	0	3	3	16.7
032N-033N 027W-026W 100yr	0	2	2	0	0	0	0	0	0	0	2	2	10.0
50yr	0	1	1	0	0	0	0	0	0	0	1	1	13.5
032N-033N 026W-025W 100yr	0	1	1	0	0	0	0	0	0	0	1	1	7.3
50yr	0	0	0	0	0	0	0	0	0	0	0	0	0.0
032N-033N 023W-022W 100yr	1	0	0	0	0	0	0	0	0	0	1	1	25.2
50yr	0	0	0	0	0	0	0	0	0	0	0	0	0.0

033°N to 034°N

Grid Cell	TD	TS	G	S	S1	S2	S3	S4	S5	H	<H	All	Spd
033N-034N 100W-099W 100yr	1	0	0	0	0	0	0	0	0	0	1	1	26.3
50yr	1	0	0	0	0	0	0	0	0	0	1	1	26.3
033N-034N 099W-098W 100yr	3	0	0	0	0	0	0	0	0	0	3	3	8.3
50yr	3	0	0	0	0	0	0	0	0	0	3	3	8.3
033N-034N 098W-097W 100yr	6	1	1	0	0	0	0	0	0	0	7	7	11.3
50yr	5	1	1	0	0	0	0	0	0	0	6	6	11.7
033N-034N 097W-096W 100yr	4	2	2	0	0	0	0	0	0	0	6	6	13.6
50yr	3	1	1	0	0	0	0	0	0	0	4	4	13.2
033N-034N 096W-095W 100yr	8	3	3	0	0	0	0	0	0	0	11	11	12.2
50yr	4	1	1	0	0	0	0	0	0	0	5	5	12.4
033N-034N 095W-094W 100yr	4	2	2	0	0	0	0	0	0	0	6	6	12.2
50yr	4	0	0	0	0	0	0	0	0	0	4	4	14.4
033N-034N 094W-093W 100yr	4	3	3	0	0	0	0	0	0	0	7	7	15.8
50yr	2	0	0	0	0	0	0	0	0	0	2	2	15.5
033N-034N 093W-092W 100yr	3	4	3	1	0	0	0	0	0	0	7	7	16.4
50yr	2	1	0	1	0	0	0	0	0	0	3	3	14.0
033N-034N 092W-091W 100yr	4	6	4	2	0	0	0	0	0	0	10	10	12.5
50yr	2	3	2	1	0	0	0	0	0	0	5	5	12.9
033N-034N 091W-090W 100yr	7	5	4	1	1	0	0	0	0	1	12	13	12.2
50yr	3	1	1	0	1	0	0	0	0	1	4	5	13.2
033N-034N 090W-089W 100yr	9	9	8	1	0	0	0	0	0	0	18	18	12.7
50yr	4	1	1	0	0	0	0	0	0	0	5	5	11.5
033N-034N 089W-088W 100yr	6	5	2	3	1	0	0	0	0	1	11	12	14.5
50yr	4	0	0	0	1	0	0	0	0	1	4	5	11.9

Grid Cell	TD	TS	G	S	S1	S2	S3	S4	S5	H	<H	All	Spd
033N-034N 088W-087W 100yr	7	1	1	0	2	0	0	0	0	2	8	10	10.8
50yr	6	0	0	0	1	0	0	0	0	1	6	7	10.5
033N-034N 087W-086W 100yr	10	2	2	0	1	0	0	0	0	1	12	13	10.3
50yr	5	1	1	0	1	0	0	0	0	1	6	7	12.2
033N-034N 086W-085W 100yr	10	6	6	0	1	0	1	0	0	2	16	18	13.3
50yr	7	0	0	0	0	0	1	0	0	1	7	8	13.7
033N-034N 085W-084W 100yr	7	5	5	0	1	0	0	0	0	1	12	13	11.9
50yr	7	0	0	0	0	0	0	0	0	0	7	7	9.8
033N-034N 084W-083W 100yr	6	6	6	0	0	0	0	0	0	0	12	12	11.3
50yr	4	0	0	0	0	0	0	0	0	0	4	4	13.0
033N-034N 083W-082W 100yr	12	6	6	0	0	0	0	0	0	0	18	18	11.4
50yr	7	1	1	0	0	0	0	0	0	0	8	8	12.7
033N-034N 082W-081W 100yr	6	12	9	3	1	0	1	0	0	2	18	20	15.5
50yr	5	4	4	0	1	0	1	0	0	2	9	11	14.3
033N-034N 081W-080W 100yr	7	26	17	9	1	1	1	1	0	4	33	37	15.9
50yr	6	10	7	3	1	1	1	1	0	4	16	20	16.1
033N-034N 080W-079W 100yr	5	22	19	3	3	1	0	1	0	5	27	32	17.6
50yr	5	11	10	1	1	0	0	1	0	2	16	18	17.2
033N-034N 079W-078W 100yr	6	23	19	4	3	4	4	1	0	12	29	41	17.9
50yr	5	11	9	2	1	3	3	1	0	8	16	24	17.4
033N-034N 078W-077W 100yr	7	26	19	7	5	8	3	2	0	18	33	51	15.2
50yr	7	13	9	4	3	7	2	2	0	14	20	34	13.6
033N-034N 077W-076W 100yr	11	18	13	5	9	7	3	1	0	20	29	49	15.3
50yr	11	12	7	5	6	6	1	0	0	13	23	36	14.5
033N-034N 076W-075W 100yr	11	12	9	3	9	8	4	2	0	23	23	46	13.8
50yr	11	8	5	3	5	6	2	0	0	13	19	32	14.2
033N-034N 075W-074W 100yr	6	15	11	4	9	2	3	0	0	14	21	35	13.7
50yr	6	10	8	2	4	2	2	0	0	8	16	24	14.2
033N-034N 074W-073W 100yr	5	17	13	4	10	5	3	1	0	19	22	41	14.2
50yr	5	10	7	3	3	1	0	1	0	5	15	20	14.0
033N-034N 073W-072W 100yr	5	18	12	6	7	5	3	0	0	15	23	38	15.5
50yr	3	13	9	4	4	1	1	0	0	6	16	22	15.5
033N-034N 072W-071W 100yr	3	13	8	5	7	6	4	2	0	19	16	35	15.2
50yr	3	10	7	3	4	3	3	0	0	10	13	23	15.2
033N-034N 071W-070W 100yr	4	20	8	12	5	6	5	1	0	17	24	41	14.5
50yr	4	16	6	10	4	4	2	0	0	10	20	30	14.4
033N-034N 070W-069W 100yr	3	18	8	10	3	4	3	1	0	11	21	32	18.2
50yr	3	14	6	8	3	3	2	0	0	8	17	25	19.1
033N-034N 069W-068W 100yr	3	19	12	7	6	6	2	0	0	14	22	36	16.3
50yr	3	11	5	6	4	2	2	0	0	8	14	22	17.2
033N-034N 068W-067W 100yr	3	19	15	4	5	6	1	1	0	13	22	35	17.4
50yr	3	8	6	2	4	3	1	0	0	8	11	19	18.3
033N-034N 067W-066W 100yr	3	11	9	2	1	6	3	0	0	10	14	24	17.7
50yr	2	4	3	1	1	2	1	0	0	4	6	10	18.9
033N-034N 066W-065W 100yr	5	9	4	5	2	9	4	1	0	16	14	30	18.0
50yr	4	3	1	2	2	4	2	0	0	8	7	15	17.9
033N-034N 065W-064W 100yr	5	10	6	4	2	5	4	0	0	11	15	26	18.3
50yr	4	5	2	3	2	3	1	0	0	6	9	15	19.0

Grid Cell	TD	TS	G	S	S1	S2	S3	S4	S5	H	<H	All	Spd
033N-034N 064W-063W 100yr	5	9	6	3	4	3	2	1	0	10	14	24	17.6
50yr	4	4	1	3	2	2	0	0	0	4	8	12	18.9
033N-034N 063W-062W 100yr	5	11	9	2	5	3	2	1	0	11	16	27	18.1
50yr	4	5	3	2	2	2	0	0	0	4	9	13	20.8
033N-034N 062W-061W 100yr	3	11	6	5	6	4	3	1	0	14	14	28	18.6
50yr	3	6	4	2	3	2	0	0	0	5	9	14	20.3
033N-034N 061W-060W 100yr	0	11	8	3	5	3	2	1	0	11	11	22	15.5
50yr	0	6	5	1	1	2	0	0	0	3	6	9	15.3
033N-034N 060W-059W 100yr	2	7	5	2	5	6	3	0	0	14	9	23	15.9
50yr	2	5	4	1	4	5	2	0	0	11	7	18	16.3
033N-034N 059W-058W 100yr	2	5	4	1	5	7	3	1	0	16	7	23	18.6
50yr	2	2	2	0	5	5	2	1	0	13	4	17	17.0
033N-034N 058W-057W 100yr	4	7	5	2	4	7	1	2	0	14	11	25	16.7
50yr	4	4	3	1	3	4	1	1	0	9	8	17	14.0
033N-034N 057W-056W 100yr	2	5	3	2	9	7	2	0	0	18	7	25	16.1
50yr	2	4	2	2	8	5	1	0	0	14	6	20	14.9
033N-034N 056W-055W 100yr	2	2	2	0	7	6	1	0	0	14	4	18	16.0
50yr	1	1	1	0	6	4	1	0	0	11	2	13	13.7
033N-034N 055W-054W 100yr	2	6	4	2	6	2	0	0	0	8	8	16	18.0
50yr	1	4	2	2	4	1	0	0	0	5	5	10	15.2
033N-034N 054W-053W 100yr	1	7	4	3	7	1	0	0	0	8	8	16	13.3
50yr	1	6	3	3	6	1	0	0	0	7	7	14	13.0
033N-034N 053W-052W 100yr	0	8	4	4	8	2	0	0	0	10	8	18	13.9
50yr	0	7	4	3	6	2	0	0	0	8	7	15	14.5
033N-034N 052W-051W 100yr	3	7	4	3	5	3	0	0	0	8	10	18	15.7
50yr	3	5	3	2	4	2	0	0	0	6	8	14	14.9
033N-034N 051W-050W 100yr	2	6	5	1	4	4	0	0	0	8	8	16	14.7
50yr	2	4	3	1	4	2	0	0	0	6	6	12	14.4
033N-034N 050W-049W 100yr	0	6	6	0	3	1	0	0	0	4	6	10	14.7
50yr	0	6	6	0	3	1	0	0	0	4	6	10	14.7
033N-034N 049W-048W 100yr	1	7	6	1	3	2	0	0	0	5	8	13	16.0
50yr	1	7	6	1	3	2	0	0	0	5	8	13	16.0
033N-034N 048W-047W 100yr	1	8	7	1	2	3	0	0	0	5	9	14	17.0
50yr	1	7	6	1	1	3	0	0	0	4	8	12	15.8
033N-034N 047W-046W 100yr	0	8	6	2	4	2	0	0	0	6	8	14	14.1
50yr	0	7	5	2	2	1	0	0	0	3	7	10	14.3
033N-034N 046W-045W 100yr	0	7	4	3	4	2	1	0	0	7	7	14	13.5
50yr	0	7	4	3	2	1	1	0	0	4	7	11	13.4
033N-034N 045W-044W 100yr	0	6	5	1	3	2	0	0	0	5	6	11	13.2
50yr	0	5	4	1	2	1	0	0	0	3	5	8	12.9
033N-034N 044W-043W 100yr	0	6	3	3	2	2	0	0	0	4	6	10	16.1
50yr	0	6	3	3	2	1	0	0	0	3	6	9	16.0
033N-034N 043W-042W 100yr	0	4	2	2	4	1	0	0	0	5	4	9	12.3
50yr	0	4	2	2	4	0	0	0	0	4	4	8	12.0
033N-034N 042W-041W 100yr	0	4	1	3	3	1	0	0	0	4	4	8	11.5
50yr	0	4	1	3	3	1	0	0	0	4	4	8	11.5
033N-034N 041W-040W 100yr	1	4	1	3	5	0	0	0	0	5	5	10	14.7
50yr	1	4	1	3	5	0	0	0	0	5	5	10	14.7

Grid Cell		TD	TS	G	S	S1	S2	S3	S4	S5	H	<H	All	Spd
033N-034N 040W-039W	100yr	0	4	1	3	2	0	0	0	0	2	4	6	20.6
	50yr	0	4	1	3	2	0	0	0	0	2	4	6	20.6
033N-034N 039W-038W	100yr	0	1	1	0	2	1	0	0	0	3	1	4	17.8
	50yr	0	1	1	0	2	0	0	0	0	2	1	3	19.6
033N-034N 038W-037W	100yr	0	2	1	1	0	1	0	0	0	1	2	3	24.4
	50yr	0	2	1	1	0	0	0	0	0	0	2	2	30.6
033N-034N 037W-036W	100yr	0	2	1	1	1	1	0	0	0	2	2	4	17.3
	50yr	0	1	1	0	1	0	0	0	0	1	1	2	20.8
033N-034N 036W-035W	100yr	1	1	0	1	2	0	1	0	0	3	2	5	19.5
	50yr	1	0	0	0	2	0	0	0	0	2	1	3	23.3
033N-034N 035W-034W	100yr	1	3	1	2	2	0	1	0	0	3	4	7	18.2
	50yr	1	2	1	1	2	0	0	0	0	2	3	5	18.8
033N-034N 034W-033W	100yr	0	3	1	2	1	0	0	0	0	1	3	4	16.9
	50yr	0	2	1	1	1	0	0	0	0	1	2	3	15.8
033N-034N 033W-032W	100yr	0	3	1	2	1	0	0	0	0	1	3	4	17.3
	50yr	0	2	1	1	1	0	0	0	0	1	2	3	16.3
033N-034N 032W-031W	100yr	1	1	1	0	1	0	0	0	0	1	2	3	12.0
	50yr	1	1	1	0	1	0	0	0	0	1	2	3	12.0
033N-034N 031W-030W	100yr	0	2	2	0	1	0	0	0	0	1	2	3	16.6
	50yr	0	2	2	0	1	0	0	0	0	1	2	3	16.6
033N-034N 030W-029W	100yr	0	1	1	0	1	0	0	0	0	1	1	2	15.3
	50yr	0	1	1	0	1	0	0	0	0	1	1	2	15.3
033N-034N 029W-028W	100yr	0	1	1	0	0	0	0	0	0	0	1	1	20.4
	50yr	0	1	1	0	0	0	0	0	0	0	1	1	20.4
033N-034N 028W-027W	100yr	0	4	2	2	0	0	0	0	0	0	4	4	15.8
	50yr	0	3	2	1	0	0	0	0	0	0	3	3	18.7
033N-034N 027W-026W	100yr	0	5	3	2	0	0	0	0	0	0	5	5	15.0
	50yr	0	4	3	1	0	0	0	0	0	0	4	4	17.2
033N-034N 026W-025W	100yr	0	2	2	0	0	0	0	0	0	0	2	2	10.4
	50yr	0	1	1	0	0	0	0	0	0	0	1	1	13.5
033N-034N 025W-024W	100yr	0	1	1	0	0	0	0	0	0	0	1	1	11.0
	50yr	0	0	0	0	0	0	0	0	0	0	0	0	0.0
033N-034N 024W-023W	100yr	0	1	1	0	0	0	0	0	0	0	1	1	14.2
	50yr	0	0	0	0	0	0	0	0	0	0	0	0	0.0
033N-034N 023W-022W	100yr	1	0	0	0	0	0	0	0	0	0	1	1	25.2
	50yr	0	0	0	0	0	0	0	0	0	0	0	0	0.0
033N-034N 022W-021W	100yr	2	0	0	0	0	0	0	0	0	0	2	2	11.5
	50yr	1	0	0	0	0	0	0	0	0	0	1	1	6.6
033N-034N 021W-020W	100yr	1	0	0	0	0	0	0	0	0	0	1	1	6.3
	50yr	1	0	0	0	0	0	0	0	0	0	1	1	6.3
033N-034N 020W-019W	100yr	1	0	0	0	0	0	0	0	0	0	1	1	5.9
	50yr	1	0	0	0	0	0	0	0	0	0	1	1	5.9

034°N to 035°N

Grid Cell		TD	TS	G	S	S1	S2	S3	S4	S5	H	<H	All	Spd
034N-035N 100W-099W	100yr	1	0	0	0	0	0	0	0	0	0	1	1	30.8
	50yr	1	0	0	0	0	0	0	0	0	0	1	1	30.8

Grid Cell		TD	TS	G	S	S1	S2	S3	S4	S5	H	<H	All	Spd
034N-035N 099W-098W	100yr	3	0	0	0	0	0	0	0	0	0	3	3	18.3
	50yr	3	0	0	0	0	0	0	0	0	0	3	3	18.3
034N-035N 098W-097W	100yr	1	0	0	0	0	0	0	0	0	0	1	1	8.5
	50yr	0	0	0	0	0	0	0	0	0	0	0	0	0.0
034N-035N 097W-096W	100yr	2	2	2	0	0	0	0	0	0	0	4	4	15.8
	50yr	2	1	1	0	0	0	0	0	0	0	3	3	17.1
034N-035N 096W-095W	100yr	8	1	1	0	0	0	0	0	0	0	9	9	15.2
	50yr	5	0	0	0	0	0	0	0	0	0	5	5	16.1
034N-035N 095W-094W	100yr	7	0	0	0	0	0	0	0	0	0	7	7	13.9
	50yr	3	0	0	0	0	0	0	0	0	0	3	3	13.8
034N-035N 094W-093W	100yr	6	2	2	0	0	0	0	0	0	0	8	8	12.6
	50yr	4	0	0	0	0	0	0	0	0	0	4	4	11.5
034N-035N 093W-092W	100yr	5	3	3	0	0	0	0	0	0	0	8	8	15.3
	50yr	3	0	0	0	0	0	0	0	0	0	3	3	14.0
034N-035N 092W-091W	100yr	5	5	4	1	0	0	0	0	0	0	10	10	12.1
	50yr	2	1	1	0	0	0	0	0	0	0	3	3	11.2
034N-035N 091W-090W	100yr	7	3	2	1	0	0	0	0	0	0	10	10	12.7
	50yr	2	2	1	1	0	0	0	0	0	0	4	4	12.9
034N-035N 090W-089W	100yr	4	6	5	1	0	0	0	0	0	0	10	10	16.9
	50yr	2	2	1	1	0	0	0	0	0	0	4	4	17.6
034N-035N 089W-088W	100yr	3	7	6	1	1	0	0	0	0	1	10	11	17.2
	50yr	2	1	1	0	1	0	0	0	0	1	3	4	18.5
034N-035N 088W-087W	100yr	4	2	1	1	1	0	0	0	0	1	6	7	15.8
	50yr	3	0	0	0	1	0	0	0	0	1	3	4	14.0
034N-035N 087W-086W	100yr	8	3	2	1	0	0	0	0	0	0	11	11	11.2
	50yr	4	2	1	1	0	0	0	0	0	0	6	6	14.9
034N-035N 086W-085W	100yr	8	4	2	2	0	0	0	0	0	0	12	12	13.8
	50yr	5	2	0	2	0	0	0	0	0	0	7	7	18.2
034N-035N 085W-084W	100yr	5	5	4	1	0	0	0	0	0	0	10	10	12.6
	50yr	3	1	0	1	0	0	0	0	0	0	4	4	12.9
034N-035N 084W-083W	100yr	5	4	4	0	0	0	0	0	0	0	9	9	12.8
	50yr	3	0	0	0	0	0	0	0	0	0	3	3	10.1
034N-035N 083W-082W	100yr	9	9	8	1	0	0	0	0	0	0	18	18	13.9
	50yr	6	0	0	0	0	0	0	0	0	0	6	6	11.9
034N-035N 082W-081W	100yr	9	11	9	2	1	1	0	0	0	2	20	22	14.4
	50yr	6	3	2	1	1	1	0	0	0	2	9	11	14.6
034N-035N 081W-080W	100yr	11	13	8	5	1	1	0	0	0	2	24	26	14.6
	50yr	7	4	2	2	1	1	0	0	0	2	11	13	16.0
034N-035N 080W-079W	100yr	10	13	10	3	1	0	0	0	0	1	23	24	17.1
	50yr	8	6	5	1	0	0	0	0	0	0	14	14	17.7
034N-035N 079W-078W	100yr	7	13	9	4	5	0	2	0	0	7	20	27	16.6
	50yr	5	8	5	3	2	0	2	0	0	4	13	17	17.1
034N-035N 078W-077W	100yr	7	20	12	8	3	4	1	2	0	10	27	37	15.6
	50yr	7	9	6	3	2	3	1	2	0	8	16	24	15.1
034N-035N 077W-076W	100yr	5	23	14	9	9	6	1	1	0	17	28	45	16.6
	50yr	5	11	6	5	6	5	0	1	0	12	16	28	15.1
034N-035N 076W-075W	100yr	7	18	15	3	7	9	3	2	0	21	25	46	16.7
	50yr	7	8	6	2	4	7	2	1	0	14	15	29	15.8

Grid Cell	TD	TS	G	S	S1	S2	S3	S4	S5	H	<H	All	Spd
034N-035N 075W-074W 100yr	10	19	14	5	5	6	5	1	0	17	29	46	15.7
50yr	10	13	11	2	2	4	4	0	0	10	23	33	15.5
034N-035N 074W-073W 100yr	6	16	13	3	5	5	3	1	0	14	22	36	14.6
50yr	6	9	8	1	2	2	0	1	0	5	15	20	12.8
034N-035N 073W-072W 100yr	6	21	17	4	7	3	1	0	0	11	27	38	15.5
50yr	4	15	12	3	5	0	0	0	0	5	19	24	14.1
034N-035N 072W-071W 100yr	2	23	14	9	5	3	1	1	0	10	25	35	14.9
50yr	2	17	10	7	4	2	1	0	0	7	19	26	15.3
034N-035N 071W-070W 100yr	3	17	6	11	5	7	4	1	0	17	20	37	16.8
50yr	3	15	5	10	3	4	3	0	0	10	18	28	16.9
034N-035N 070W-069W 100yr	2	14	5	9	4	7	3	1	0	15	16	31	17.2
50yr	2	13	4	9	2	4	1	0	0	7	15	22	17.2
034N-035N 069W-068W 100yr	2	17	9	8	8	4	2	1	0	15	19	34	18.3
50yr	2	13	6	7	7	2	1	0	0	10	15	25	18.1
034N-035N 068W-067W 100yr	1	16	12	4	9	5	2	1	0	17	17	34	17.3
50yr	1	11	7	4	7	2	2	0	0	11	12	23	18.3
034N-035N 067W-066W 100yr	2	15	11	4	6	5	3	0	0	14	17	31	18.0
50yr	1	9	5	4	6	1	2	0	0	9	10	19	20.5
034N-035N 066W-065W 100yr	3	8	3	5	3	6	4	0	0	13	11	24	18.3
50yr	1	6	2	4	2	3	3	0	0	8	7	15	18.6
034N-035N 065W-064W 100yr	4	12	8	4	5	6	5	0	0	16	16	32	20.4
50yr	1	8	4	4	4	3	2	0	0	9	9	18	20.5
034N-035N 064W-063W 100yr	2	12	8	4	6	4	4	1	0	15	14	29	19.9
50yr	0	9	5	4	5	2	1	0	0	8	9	17	21.5
034N-035N 063W-062W 100yr	4	11	6	5	1	3	1	1	0	6	15	21	19.9
50yr	2	7	2	5	1	1	0	0	0	2	9	11	20.5
034N-035N 062W-061W 100yr	4	6	2	4	4	2	3	0	0	9	10	19	20.6
50yr	3	6	2	4	2	1	0	0	0	3	9	12	21.8
034N-035N 061W-060W 100yr	2	10	6	4	5	5	2	1	0	13	12	25	20.3
50yr	2	7	5	2	2	2	0	0	0	4	9	13	21.6
034N-035N 060W-059W 100yr	0	11	8	3	5	8	1	1	0	15	11	26	20.3
50yr	0	7	6	1	2	5	0	0	0	7	7	14	20.2
034N-035N 059W-058W 100yr	1	5	4	1	4	8	3	0	0	15	6	21	17.2
50yr	1	3	3	0	4	5	2	0	0	11	4	15	17.0
034N-035N 058W-057W 100yr	2	4	4	0	3	9	2	0	0	14	6	20	14.9
50yr	2	2	2	0	3	8	1	0	0	12	4	16	14.7
034N-035N 057W-056W 100yr	2	6	4	2	6	10	1	0	0	17	8	25	14.9
50yr	2	4	2	2	5	8	0	0	0	13	6	19	14.7
034N-035N 056W-055W 100yr	2	2	1	1	7	10	2	0	0	19	4	23	15.3
50yr	2	2	1	1	7	7	1	0	0	15	4	19	14.9
034N-035N 055W-054W 100yr	3	1	1	0	7	8	0	0	0	15	4	19	18.0
50yr	2	0	0	0	6	4	0	0	0	10	2	12	15.6
034N-035N 054W-053W 100yr	2	4	3	1	5	3	0	0	0	8	6	14	19.0
50yr	1	2	1	1	5	2	0	0	0	7	3	10	15.8
034N-035N 053W-052W 100yr	1	7	5	2	5	2	0	0	0	7	8	15	16.5
50yr	0	5	3	2	5	1	0	0	0	6	5	11	12.7
034N-035N 052W-051W 100yr	3	6	5	1	6	1	0	0	0	7	9	16	18.0
50yr	2	5	4	1	5	1	0	0	0	6	7	13	14.8

Grid Cell	TD	TS	G	S	S1	S2	S3	S4	S5	H	<H	All	Spd
034N-035N 051W-050W 100yr	2	3	3	0	7	4	0	0	0	11	5	16	17.4
50yr	1	2	2	0	6	2	0	0	0	8	3	11	14.5
034N-035N 050W-049W 100yr	1	4	3	1	7	4	0	0	0	11	5	16	16.8
50yr	1	3	2	1	6	3	0	0	0	9	4	13	16.0
034N-035N 049W-048W 100yr	2	7	6	1	4	2	0	0	0	6	9	15	14.2
50yr	2	7	6	1	4	2	0	0	0	6	9	15	14.2
034N-035N 048W-047W 100yr	2	7	5	2	5	4	0	0	0	9	9	18	14.3
50yr	2	6	4	2	4	3	0	0	0	7	8	15	12.6
034N-035N 047W-046W 100yr	1	6	4	2	3	5	0	0	0	8	7	15	13.7
50yr	1	6	4	2	2	4	0	0	0	6	7	13	13.8
034N-035N 046W-045W 100yr	0	6	5	1	4	4	1	0	0	9	6	15	13.9
50yr	0	6	5	1	3	3	1	0	0	7	6	13	14.3
034N-035N 045W-044W 100yr	0	6	4	2	7	3	0	0	0	10	6	16	13.9
50yr	0	5	3	2	5	3	0	0	0	8	5	13	13.3
034N-035N 044W-043W 100yr	0	5	4	1	6	2	0	0	0	8	5	13	15.1
50yr	0	4	3	1	5	1	0	0	0	6	4	10	14.8
034N-035N 043W-042W 100yr	0	5	4	1	4	2	0	0	0	6	5	11	15.5
50yr	0	4	3	1	4	0	0	0	0	4	4	8	15.7
034N-035N 042W-041W 100yr	0	5	4	1	2	1	0	0	0	3	5	8	13.4
50yr	0	4	3	1	2	1	0	0	0	3	4	7	13.6
034N-035N 041W-040W 100yr	1	6	4	2	4	1	0	0	0	5	7	12	14.0
50yr	1	5	3	2	4	1	0	0	0	5	6	11	14.4
034N-035N 040W-039W 100yr	1	5	1	4	3	1	0	0	0	4	6	10	19.6
50yr	1	5	1	4	3	1	0	0	0	4	6	10	19.6
034N-035N 039W-038W 100yr	1	6	2	4	4	1	0	0	0	5	7	12	18.5
50yr	1	6	2	4	4	1	0	0	0	5	7	12	18.5
034N-035N 038W-037W 100yr	2	2	0	2	2	1	0	0	0	3	4	7	23.7
50yr	2	2	0	2	2	1	0	0	0	3	4	7	23.7
034N-035N 037W-036W 100yr	2	1	1	0	1	1	0	0	0	2	3	5	18.2
50yr	2	1	1	0	1	1	0	0	0	2	3	5	18.2
034N-035N 036W-035W 100yr	1	2	1	1	2	1	0	0	0	3	3	6	20.3
50yr	1	1	1	0	2	1	0	0	0	3	2	5	20.4
034N-035N 035W-034W 100yr	1	1	0	1	4	1	1	0	0	6	2	8	19.4
50yr	1	0	0	0	4	1	0	0	0	5	1	6	20.2
034N-035N 034W-033W 100yr	1	1	0	1	2	1	1	0	0	4	2	6	21.2
50yr	1	1	0	1	2	1	0	0	0	3	2	5	22.8
034N-035N 033W-032W 100yr	1	2	0	2	1	1	1	0	0	3	3	6	21.5
50yr	1	1	0	1	1	1	0	0	0	2	2	4	23.8
034N-035N 032W-031W 100yr	2	3	1	2	0	1	1	0	0	2	5	7	16.9
50yr	2	2	1	1	0	1	0	0	0	1	4	5	16.8
034N-035N 031W-030W 100yr	0	2	1	1	0	1	1	0	0	2	2	4	20.6
50yr	0	1	1	0	0	1	0	0	0	1	1	2	24.1
034N-035N 030W-029W 100yr	1	0	0	0	1	0	0	0	0	1	1	2	13.5
50yr	1	0	0	0	1	0	0	0	0	1	1	2	13.5
034N-035N 029W-028W 100yr	0	1	0	1	1	0	0	0	0	1	1	2	10.3
50yr	0	0	0	0	1	0	0	0	0	1	0	1	11.5
034N-035N 028W-027W 100yr	0	1	0	1	0	0	0	0	0	0	1	1	9.2
50yr	0	0	0	0	0	0	0	0	0	0	0	0	0.0

Grid Cell	TD	TS	G	S	S1	S2	S3	S4	S5	H	<H	All	Spd
034N-035N 027W-026W 100yr	0	3	2	1	0	0	0	0	0	0	3	3	18.4
50yr	0	3	2	1	0	0	0	0	0	0	3	3	18.4
034N-035N 026W-025W 100yr	0	2	1	1	0	0	0	0	0	0	2	2	17.7
50yr	0	2	1	1	0	0	0	0	0	0	2	2	17.7
034N-035N 025W-024W 100yr	0	1	1	0	0	0	0	0	0	0	1	1	20.1
50yr	0	1	1	0	0	0	0	0	0	0	1	1	20.1
034N-035N 024W-023W 100yr	1	1	1	0	0	0	0	0	0	0	2	2	10.7
50yr	1	0	0	0	0	0	0	0	0	0	1	1	7.1
034N-035N 023W-022W 100yr	1	1	1	0	0	0	0	0	0	0	2	2	7.0
50yr	1	0	0	0	0	0	0	0	0	0	1	1	6.5
034N-035N 022W-021W 100yr	1	1	1	0	0	0	0	0	0	0	2	2	10.0
50yr	1	0	0	0	0	0	0	0	0	0	1	1	6.5

035°N to 036°N

Grid Cell	TD	TS	G	S	S1	S2	S3	S4	S5	H	<H	All	Spd
035N-036N 100W-099W 100yr	1	0	0	0	0	0	0	0	0	0	1	1	11.2
50yr	1	0	0	0	0	0	0	0	0	0	1	1	11.2
035N-036N 099W-098W 100yr	3	0	0	0	0	0	0	0	0	0	3	3	16.3
50yr	3	0	0	0	0	0	0	0	0	0	3	3	16.3
035N-036N 098W-097W 100yr	3	0	0	0	0	0	0	0	0	0	3	3	18.2
50yr	2	0	0	0	0	0	0	0	0	0	2	2	22.4
035N-036N 097W-096W 100yr	2	0	0	0	0	0	0	0	0	0	2	2	16.2
50yr	2	0	0	0	0	0	0	0	0	0	2	2	16.2
035N-036N 096W-095W 100yr	7	1	1	0	0	0	0	0	0	0	8	8	17.2
50yr	4	0	0	0	0	0	0	0	0	0	4	4	21.0
035N-036N 095W-094W 100yr	8	0	0	0	0	0	0	0	0	0	8	8	15.8
50yr	3	0	0	0	0	0	0	0	0	0	3	3	19.2
035N-036N 094W-093W 100yr	8	1	1	0	0	0	0	0	0	0	9	9	12.8
50yr	4	0	0	0	0	0	0	0	0	0	4	4	11.0
035N-036N 093W-092W 100yr	4	1	1	0	0	0	0	0	0	0	5	5	15.1
50yr	2	0	0	0	0	0	0	0	0	0	2	2	12.2
035N-036N 092W-091W 100yr	4	4	4	0	0	0	0	0	0	0	8	8	16.0
50yr	1	0	0	0	0	0	0	0	0	0	1	1	13.2
035N-036N 091W-090W 100yr	6	2	2	0	0	0	0	0	0	0	8	8	9.4
50yr	2	0	0	0	0	0	0	0	0	0	2	2	10.8
035N-036N 090W-089W 100yr	8	3	3	0	0	0	0	0	0	0	11	11	14.0
50yr	4	0	0	0	0	0	0	0	0	0	4	4	14.6
035N-036N 089W-088W 100yr	5	5	4	1	0	0	0	0	0	0	10	10	18.5
50yr	2	1	1	0	0	0	0	0	0	0	3	3	20.6
035N-036N 088W-087W 100yr	1	6	5	1	0	0	0	0	0	0	7	7	21.4
50yr	1	2	2	0	0	0	0	0	0	0	3	3	21.8
035N-036N 087W-086W 100yr	3	5	5	0	0	0	0	0	0	0	8	8	18.3
50yr	2	3	3	0	0	0	0	0	0	0	5	5	20.9
035N-036N 086W-085W 100yr	5	4	3	1	0	0	0	0	0	0	9	9	19.1
50yr	4	2	1	1	0	0	0	0	0	0	6	6	22.5

Grid Cell	TD	TS	G	S	S1	S2	S3	S4	S5	H	<H	All	Spd
035N-036N 085W-084W 100yr	4	3	2	1	0	0	0	0	0	0	7	7	14.7
50yr	2	1	0	1	0	0	0	0	0	0	3	3	18.8
035N-036N 084W-083W 100yr	7	1	1	0	0	0	0	0	0	0	8	8	12.8
50yr	3	0	0	0	0	0	0	0	0	0	3	3	16.0
035N-036N 083W-082W 100yr	6	3	3	0	0	0	0	0	0	0	9	9	15.5
50yr	3	0	0	0	0	0	0	0	0	0	3	3	11.5
035N-036N 082W-081W 100yr	5	5	4	1	0	1	0	0	0	1	10	11	17.6
50yr	3	1	0	1	0	1	0	0	0	1	4	5	12.8
035N-036N 081W-080W 100yr	9	9	9	0	0	0	0	0	0	0	18	18	15.4
50yr	4	3	3	0	0	0	0	0	0	0	7	7	13.1
035N-036N 080W-079W 100yr	11	9	7	2	0	0	0	0	0	0	20	20	15.0
50yr	7	1	1	0	0	0	0	0	0	0	8	8	13.8
035N-036N 079W-078W 100yr	11	15	10	5	1	0	2	0	0	3	26	29	15.5
50yr	8	6	4	2	0	0	2	0	0	2	14	16	15.1
035N-036N 078W-077W 100yr	6	17	12	5	1	2	0	0	0	3	23	26	17.0
50yr	3	10	7	3	1	2	0	0	0	3	13	16	18.0
035N-036N 077W-076W 100yr	7	22	13	9	6	3	0	0	0	9	29	38	15.3
50yr	4	15	9	6	4	2	0	0	0	6	19	25	15.8
035N-036N 076W-075W 100yr	4	24	14	10	8	10	4	0	0	22	28	50	17.2
50yr	3	11	5	6	5	5	3	0	0	13	14	27	17.4
035N-036N 075W-074W 100yr	2	24	14	10	5	9	6	1	0	21	26	47	18.8
50yr	2	14	8	6	2	5	5	0	0	12	16	28	19.5
035N-036N 074W-073W 100yr	5	19	10	9	4	7	4	2	0	17	24	41	17.9
50yr	5	9	4	5	2	3	2	1	0	8	14	22	18.3
035N-036N 073W-072W 100yr	9	12	7	5	6	4	2	0	0	12	21	33	16.5
50yr	7	8	4	4	4	1	1	0	0	6	15	21	15.6
035N-036N 072W-071W 100yr	5	23	13	10	4	2	0	1	0	7	28	35	15.1
50yr	4	16	8	8	2	2	0	0	0	4	20	24	15.0
035N-036N 071W-070W 100yr	3	23	13	10	7	4	2	1	0	14	26	40	17.9
50yr	2	16	8	8	5	3	2	0	0	10	18	28	18.4
035N-036N 070W-069W 100yr	3	18	9	9	7	6	1	1	0	15	21	36	18.2
50yr	1	14	5	9	4	3	0	1	0	8	15	23	19.2
035N-036N 069W-068W 100yr	4	24	11	13	7	9	0	1	0	17	28	45	19.0
50yr	1	21	9	12	5	5	0	0	0	10	22	32	18.7
035N-036N 068W-067W 100yr	3	20	13	7	11	6	0	1	0	18	23	41	17.6
50yr	1	18	11	7	7	2	0	0	0	9	19	28	18.1
035N-036N 067W-066W 100yr	3	19	12	7	12	5	2	0	0	19	22	41	18.8
50yr	2	14	7	7	9	2	1	0	0	12	16	28	20.2
035N-036N 066W-065W 100yr	2	16	8	8	9	7	3	0	0	19	18	37	19.4
50yr	2	11	4	7	7	4	2	0	0	13	13	26	20.5
035N-036N 065W-064W 100yr	3	12	6	6	7	6	3	0	0	16	15	31	18.1
50yr	2	7	2	5	4	3	2	0	0	9	9	18	18.5
035N-036N 064W-063W 100yr	2	10	6	4	7	5	3	0	0	15	12	27	20.3
50yr	1	7	4	3	6	2	1	0	0	9	8	17	20.8
035N-036N 063W-062W 100yr	0	12	8	4	5	6	1	1	0	13	12	25	20.6
50yr	0	7	4	3	5	2	0	0	0	7	7	14	22.6
035N-036N 062W-061W 100yr	2	11	7	4	3	7	3	0	0	13	13	26	22.4
50yr	1	7	3	4	3	1	0	0	0	4	8	12	26.4

Grid Cell	TD	TS	G	S	S1	S2	S3	S4	S5	H	<H	All	Spd
035N-036N 061W-060W 100yr	1	10	2	8	3	4	2	0	0	9	11	20	20.2
50yr	1	7	1	6	3	2	0	0	0	5	8	13	22.7
035N-036N 060W-059W 100yr	2	11	5	6	6	8	1	1	0	16	13	29	21.8
50yr	1	8	4	4	4	5	0	0	0	9	9	18	22.7
035N-036N 059W-058W 100yr	2	10	6	4	6	8	1	1	0	16	12	28	21.7
50yr	2	8	6	2	4	3	0	0	0	7	10	17	21.8
035N-036N 058W-057W 100yr	1	10	6	4	4	6	2	0	0	12	11	23	18.6
50yr	1	8	4	4	4	3	1	0	0	8	9	17	18.9
035N-036N 057W-056W 100yr	1	8	5	3	5	3	3	0	0	11	9	20	15.5
50yr	0	5	2	3	4	3	2	0	0	9	5	14	15.6
035N-036N 056W-055W 100yr	0	8	6	2	7	6	2	0	0	15	8	23	16.1
50yr	0	6	4	2	7	5	1	0	0	13	6	19	15.9
035N-036N 055W-054W 100yr	1	6	3	3	8	9	1	0	0	18	7	25	17.0
50yr	1	5	2	3	7	6	0	0	0	13	6	19	16.7
035N-036N 054W-053W 100yr	1	6	3	3	5	7	0	0	0	12	7	19	18.4
50yr	1	5	2	3	4	4	0	0	0	8	6	14	19.2
035N-036N 053W-052W 100yr	1	4	3	1	3	5	0	0	0	8	5	13	20.3
50yr	1	3	2	1	3	2	0	0	0	5	4	9	20.5
035N-036N 052W-051W 100yr	3	6	6	0	3	3	0	0	0	6	9	15	21.1
50yr	3	4	4	0	3	1	0	0	0	4	7	11	20.1
035N-036N 051W-050W 100yr	3	6	5	1	6	1	0	0	0	7	9	16	21.7
50yr	2	4	4	0	5	0	0	0	0	5	6	11	19.0
035N-036N 050W-049W 100yr	2	5	2	3	8	3	0	0	0	11	7	18	20.5
50yr	1	5	2	3	6	2	0	0	0	8	6	14	19.1
035N-036N 049W-048W 100yr	3	8	6	2	7	5	0	0	0	12	11	23	18.9
50yr	2	7	5	2	4	4	0	0	0	8	9	17	18.3
035N-036N 048W-047W 100yr	4	7	6	1	7	4	0	0	0	11	11	22	20.0
50yr	3	6	5	1	4	3	0	0	0	7	9	16	17.6
035N-036N 047W-046W 100yr	2	5	3	2	7	1	0	0	0	8	7	15	19.7
50yr	1	5	3	2	5	1	0	0	0	6	6	12	18.0
035N-036N 046W-045W 100yr	2	7	4	3	3	5	0	0	0	8	9	17	19.8
50yr	1	7	4	3	2	5	0	0	0	7	8	15	18.5
035N-036N 045W-044W 100yr	2	6	4	2	5	6	0	0	0	11	8	19	18.3
50yr	1	5	3	2	3	6	0	0	0	9	6	15	17.6
035N-036N 044W-043W 100yr	1	8	4	4	7	4	0	0	0	11	9	20	16.5
50yr	1	6	3	3	6	4	0	0	0	10	7	17	16.1
035N-036N 043W-042W 100yr	0	5	2	3	9	4	0	0	0	13	5	18	17.2
50yr	0	3	1	2	7	3	0	0	0	10	3	13	17.3
035N-036N 042W-041W 100yr	0	3	1	2	8	3	0	0	0	11	3	14	16.8
50yr	0	2	0	2	7	2	0	0	0	9	2	11	17.2
035N-036N 041W-040W 100yr	1	5	3	2	6	4	0	0	0	10	6	16	16.6
50yr	1	4	2	2	6	3	0	0	0	9	5	14	16.9
035N-036N 040W-039W 100yr	0	4	2	2	3	2	0	0	0	5	4	9	17.9
50yr	0	4	2	2	3	2	0	0	0	5	4	9	17.9
035N-036N 039W-038W 100yr	0	6	3	3	5	1	0	0	0	6	6	12	17.2
50yr	0	5	2	3	5	1	0	0	0	6	5	11	16.4
035N-036N 038W-037W 100yr	1	6	2	4	3	1	0	0	0	4	7	11	17.8
50yr	1	5	1	4	3	1	0	0	0	4	6	10	17.1

Grid Cell	TD	TS	G	S	S1	S2	S3	S4	S5	H	<H	All	Spd
035N-036N 037W-036W 100yr	1	2	1	1	3	1	0	0	0	4	3	7	17.1
50yr	1	1	0	1	3	1	0	0	0	4	2	6	15.7
035N-036N 036W-035W 100yr	1	2	1	1	3	0	0	0	0	3	3	6	15.9
50yr	1	2	1	1	3	0	0	0	0	3	3	6	15.9
035N-036N 035W-034W 100yr	1	2	1	1	1	1	0	0	0	2	3	5	17.5
50yr	0	1	1	0	1	1	0	0	0	2	1	3	19.0
035N-036N 034W-033W 100yr	0	3	1	2	0	1	0	0	0	1	3	4	13.2
50yr	0	1	0	1	0	1	0	0	0	1	1	2	11.0
035N-036N 033W-032W 100yr	0	3	1	2	2	0	0	0	0	2	3	5	16.5
50yr	0	2	0	2	2	0	0	0	0	2	2	4	18.9
035N-036N 032W-031W 100yr	1	3	2	1	1	0	0	0	0	1	4	5	15.3
50yr	1	2	1	1	1	0	0	0	0	1	3	4	17.6
035N-036N 031W-030W 100yr	1	2	0	2	0	1	1	0	0	2	3	5	17.5
50yr	1	1	0	1	0	1	0	0	0	1	2	3	17.6
035N-036N 030W-029W 100yr	2	1	0	1	0	1	1	0	0	2	3	5	17.3
50yr	2	0	0	0	0	1	0	0	0	1	2	3	17.2
035N-036N 029W-028W 100yr	2	0	0	0	1	1	1	0	0	3	2	5	14.8
50yr	2	0	0	0	1	1	0	0	0	2	2	4	15.5
035N-036N 028W-027W 100yr	1	0	0	0	0	0	1	0	0	1	1	2	14.5
50yr	1	0	0	0	0	0	0	0	0	0	1	1	15.8
035N-036N 027W-026W 100yr	0	1	1	0	0	0	0	0	0	0	1	1	21.5
50yr	0	1	1	0	0	0	0	0	0	0	1	1	21.5
035N-036N 026W-025W 100yr	0	2	2	0	0	0	0	0	0	0	2	2	17.6
50yr	0	2	2	0	0	0	0	0	0	0	2	2	17.6
035N-036N 025W-024W 100yr	0	2	2	0	0	0	0	0	0	0	2	2	17.0
50yr	0	2	2	0	0	0	0	0	0	0	2	2	17.0
035N-036N 024W-023W 100yr	1	1	1	0	0	0	0	0	0	0	2	2	13.2
50yr	1	1	1	0	0	0	0	0	0	0	2	2	13.2
035N-036N 023W-022W 100yr	0	1	1	0	0	0	0	0	0	0	1	1	8.8
50yr	0	0	0	0	0	0	0	0	0	0	0	0	0.0

036°N to 037°N

036N-037N 101W-100W 100yr	1	0	0	0	0	0	0	0	0	0	1	1	6.5
50yr	1	0	0	0	0	0	0	0	0	0	1	1	6.5
036N-037N 100W-099W 100yr	2	0	0	0	0	0	0	0	0	0	2	2	9.5
50yr	2	0	0	0	0	0	0	0	0	0	2	2	9.5
036N-037N 099W-098W 100yr	1	0	0	0	0	0	0	0	0	0	1	1	7.9
50yr	1	0	0	0	0	0	0	0	0	0	1	1	7.9
036N-037N 098W-097W 100yr	1	0	0	0	0	0	0	0	0	0	1	1	40.8
50yr	1	0	0	0	0	0	0	0	0	0	1	1	40.8
036N-037N 097W-096W 100yr	2	0	0	0	0	0	0	0	0	0	2	2	27.1
50yr	1	0	0	0	0	0	0	0	0	0	1	1	40.8
036N-037N 096W-095W 100yr	4	0	0	0	0	0	0	0	0	0	4	4	23.6
50yr	2	0	0	0	0	0	0	0	0	0	2	2	35.7
036N-037N 095W-094W 100yr	6	0	0	0	0	0	0	0	0	0	6	6	27.3
50yr	5	0	0	0	0	0	0	0	0	0	5	5	27.1

Grid Cell		TD	TS	G	S	S1	S2	S3	S4	S5	H	<H	AH	Spd
036N-037N 094W-093W	100yr	7	0	0	0	0	0	0	0	0	0	7	7	19.0
	50yr	3	0	0	0	0	0	0	0	0	0	3	3	21.3
036N-037N 093W-092W	100yr	4	0	0	0	0	0	0	0	0	0	4	4	18.0
	50yr	2	0	0	0	0	0	0	0	0	0	2	2	21.8
036N-037N 092W-091W	100yr	4	2	2	0	0	0	0	0	0	0	6	6	17.2
	50yr	2	0	0	0	0	0	0	0	0	0	2	2	10.7
036N-037N 091W-090W	100yr	4	3	3	0	0	0	0	0	0	0	7	7	16.1
	50yr	1	0	0	0	0	0	0	0	0	0	1	1	12.5
036N-037N 090W-089W	100yr	9	0	0	0	0	0	0	0	0	0	9	9	14.0
	50yr	4	0	0	0	0	0	0	0	0	0	4	4	14.9
036N-037N 089W-088W	100yr	6	0	0	0	0	0	0	0	0	0	6	6	16.5
	50yr	3	0	0	0	0	0	0	0	0	0	3	3	15.3
036N-037N 088W-087W	100yr	5	1	0	1	0	0	0	0	0	0	6	6	16.7
	50yr	5	0	0	0	0	0	0	0	0	0	5	5	14.1
036N-037N 087W-086W	100yr	4	2	2	0	0	0	0	0	0	0	6	6	20.8
	50yr	4	1	1	0	0	0	0	0	0	0	5	5	22.0
036N-037N 086W-085W	100yr	4	3	3	0	0	0	0	0	0	0	7	7	25.3
	50yr	3	1	1	0	0	0	0	0	0	0	4	4	33.6
036N-037N 085W-084W	100yr	2	4	4	0	0	0	0	0	0	0	6	6	22.7
	50yr	1	1	1	0	0	0	0	0	0	0	2	2	33.9
036N-037N 084W-083W	100yr	3	0	0	0	0	0	0	0	0	0	3	3	10.1
	50yr	1	0	0	0	0	0	0	0	0	0	1	1	10.7
036N-037N 083W-082W	100yr	4	1	1	0	0	0	0	0	0	0	5	5	15.2
	50yr	2	0	0	0	0	0	0	0	0	0	2	2	15.7
036N-037N 082W-081W	100yr	1	5	3	2	0	0	0	0	0	0	6	6	19.6
	50yr	1	2	0	2	0	0	0	0	0	0	3	3	20.7
036N-037N 081W-080W	100yr	4	7	7	0	0	0	0	0	0	0	11	11	16.5
	50yr	3	3	3	0	0	0	0	0	0	0	6	6	13.9
036N-037N 080W-079W	100yr	9	8	7	1	1	0	0	0	0	1	17	18	15.8
	50yr	5	3	2	1	1	0	0	0	0	1	8	9	13.2
036N-037N 079W-078W	100yr	9	7	5	2	2	0	1	0	0	3	16	19	16.5
	50yr	6	2	1	1	1	0	1	0	0	2	8	10	14.6
036N-037N 078W-077W	100yr	10	8	5	3	2	0	0	0	0	2	18	20	17.1
	50yr	7	2	1	1	1	0	0	0	0	1	9	10	15.5
036N-037N 077W-076W	100yr	8	19	14	5	2	0	0	0	0	2	27	29	16.8
	50yr	5	12	9	3	2	0	0	0	0	2	17	19	17.3
036N-037N 076W-075W	100yr	9	19	12	7	10	4	0	0	0	14	28	42	16.9
	50yr	7	12	7	5	5	2	0	0	0	7	19	26	16.6
036N-037N 075W-074W	100yr	8	21	11	10	9	4	5	0	0	18	29	47	18.7
	50yr	6	13	5	8	5	3	4	0	0	12	19	31	18.5
036N-037N 074W-073W	100yr	8	26	11	15	8	5	7	2	0	22	34	56	18.5
	50yr	7	14	5	9	5	3	4	1	0	13	21	34	18.2
036N-037N 073W-072W	100yr	4	22	13	9	8	6	3	2	0	19	26	45	18.7
	50yr	3	10	7	3	5	3	2	1	0	11	13	24	19.2
036N-037N 072W-071W	100yr	3	18	11	7	10	4	1	0	0	15	21	36	18.3
	50yr	2	11	6	5	6	3	1	0	0	10	13	23	18.1
036N-037N 071W-070W	100yr	1	16	7	9	8	3	3	0	0	14	17	31	17.9
	50yr	1	11	4	7	5	2	2	0	0	9	12	21	16.7

Grid Cell	TD	TS	G	S	S1	S2	S3	S4	S5	H	<H	All	Spd
036N-037N 070W-069W 100yr	1	20	10	10	11	1	2	1	0	15	21	36	18.7
50yr	1	16	7	9	6	1	0	1	0	8	17	25	18.8
036N-037N 069W-068W 100yr	2	20	7	13	12	3	2	1	0	18	22	40	20.8
50yr	0	16	5	11	7	2	1	1	0	11	16	27	20.2
036N-037N 068W-067W 100yr	2	19	12	7	11	5	2	1	0	19	21	40	19.4
50yr	1	16	9	7	7	3	1	1	0	12	17	29	19.2
036N-037N 067W-066W 100yr	4	18	12	6	12	6	2	0	0	20	22	42	17.1
50yr	4	13	9	4	9	3	0	0	0	12	17	29	16.3
036N-037N 066W-065W 100yr	3	19	10	9	14	7	1	0	0	22	22	44	19.4
50yr	3	14	7	7	11	5	0	0	0	16	17	33	19.1
036N-037N 065W-064W 100yr	4	15	7	8	13	6	2	0	0	21	19	40	21.4
50yr	4	13	5	8	9	4	1	0	0	14	17	31	22.0
036N-037N 064W-063W 100yr	6	10	4	6	5	6	3	0	0	14	16	30	20.6
50yr	6	8	3	5	3	2	1	0	0	6	14	20	22.4
036N-037N 063W-062W 100yr	5	9	4	5	3	4	2	0	0	9	14	23	19.4
50yr	5	7	2	5	3	2	1	0	0	6	12	18	20.5
036N-037N 062W-061W 100yr	0	10	8	2	4	9	2	0	0	15	10	25	20.5
50yr	0	7	5	2	4	4	0	0	0	8	7	15	19.6
036N-037N 061W-060W 100yr	1	11	8	3	3	8	3	0	0	14	12	26	22.7
50yr	0	8	5	3	3	2	0	0	0	5	8	13	24.2
036N-037N 060W-059W 100yr	1	10	4	6	4	9	1	0	0	14	11	25	19.5
50yr	0	7	3	4	3	4	0	0	0	7	7	14	21.6
036N-037N 059W-058W 100yr	2	13	6	7	4	5	1	1	0	11	15	26	23.3
50yr	1	8	4	4	2	4	0	0	0	6	9	15	26.2
036N-037N 058W-057W 100yr	2	14	8	6	5	6	1	1	0	13	16	29	23.0
50yr	2	9	5	4	4	4	0	0	0	8	11	19	23.5
036N-037N 057W-056W 100yr	1	9	6	3	4	6	1	0	0	11	10	21	20.7
50yr	1	7	4	3	2	3	1	0	0	6	8	14	20.3
036N-037N 056W-055W 100yr	0	8	7	1	2	6	1	0	0	9	8	17	18.3
50yr	0	5	5	0	0	4	1	0	0	5	5	10	16.7
036N-037N 055W-054W 100yr	0	7	7	0	5	6	2	0	0	13	7	20	17.4
50yr	0	5	5	0	4	5	1	0	0	10	5	15	15.8
036N-037N 054W-053W 100yr	1	6	5	1	7	4	2	0	0	13	7	20	17.6
50yr	1	4	3	1	6	3	1	0	0	10	5	15	16.9
036N-037N 053W-052W 100yr	0	4	2	2	6	5	0	0	0	11	4	15	14.9
50yr	0	3	1	2	5	3	0	0	0	8	3	11	15.8
036N-037N 052W-051W 100yr	1	4	1	3	4	6	0	0	0	10	5	15	16.0
50yr	1	3	0	3	3	3	0	0	0	6	4	10	16.9
036N-037N 051W-050W 100yr	0	5	3	2	3	5	0	0	0	8	5	13	21.5
50yr	0	3	2	1	2	2	0	0	0	4	3	7	21.4
036N-037N 050W-049W 100yr	0	7	2	5	4	3	0	0	0	7	7	14	22.4
50yr	0	5	1	4	3	2	0	0	0	5	5	10	21.9
036N-037N 049W-048W 100yr	0	7	3	4	6	4	0	0	0	10	7	17	20.3
50yr	0	5	2	3	4	3	0	0	0	7	5	12	20.0
036N-037N 048W-047W 100yr	0	7	3	4	5	6	0	0	0	11	7	18	26.1
50yr	0	5	2	3	2	5	0	0	0	7	5	12	24.3
036N-037N 047W-046W 100yr	0	5	3	2	5	2	0	0	0	7	5	12	23.9
50yr	0	5	3	2	2	2	0	0	0	4	5	9	19.6

Grid Cell	TD	TS	G	S	S1	S2	S3	S4	S5	H	<H	All	Spd
036N-037N 046W-045W 100yr	0	4	1	3	4	3	0	0	0	7	4	11	20.1
50yr	0	3	1	2	3	3	0	0	0	6	3	9	20.0
036N-037N 045W-044W 100yr	1	6	4	2	3	4	0	0	0	7	7	14	20.7
50yr	0	4	3	1	2	4	0	0	0	6	4	10	21.4
036N-037N 044W-043W 100yr	2	7	5	2	5	3	0	0	0	8	9	17	20.0
50yr	1	6	5	1	4	3	0	0	0	7	7	14	19.9
036N-037N 043W-042W 100yr	2	7	4	3	7	1	0	0	0	8	9	17	17.5
50yr	1	4	3	1	5	1	0	0	0	6	5	11	18.7
036N-037N 042W-041W 100yr	3	6	2	4	8	1	0	0	0	9	9	18	17.2
50yr	2	3	1	2	5	1	0	0	0	6	5	11	18.5
036N-037N 041W-040W 100yr	4	5	3	2	8	1	0	0	0	9	9	18	19.7
50yr	3	3	1	2	5	1	0	0	0	6	6	12	20.7
036N-037N 040W-039W 100yr	2	6	4	2	7	1	0	0	0	8	8	16	20.9
50yr	2	5	3	2	4	1	0	0	0	5	7	12	21.3
036N-037N 039W-038W 100yr	1	7	4	3	8	0	0	0	0	8	8	16	20.9
50yr	1	6	3	3	6	0	0	0	0	6	7	13	20.5
036N-037N 038W-037W 100yr	0	7	3	4	5	0	0	0	0	5	7	12	24.2
50yr	0	7	3	4	4	0	0	0	0	4	7	11	24.1
036N-037N 037W-036W 100yr	0	3	2	1	5	0	0	0	0	5	3	8	22.9
50yr	0	3	2	1	4	0	0	0	0	4	3	7	22.6
036N-037N 036W-035W 100yr	1	3	1	2	4	0	0	0	0	4	4	8	20.8
50yr	1	3	1	2	4	0	0	0	0	4	4	8	20.8
036N-037N 035W-034W 100yr	2	4	2	2	3	1	0	0	0	4	6	10	18.4
50yr	2	4	2	2	3	1	0	0	0	4	6	10	18.4
036N-037N 034W-033W 100yr	2	5	1	4	1	1	0	0	0	2	7	9	18.5
50yr	2	4	1	3	1	1	0	0	0	2	6	8	18.0
036N-037N 033W-032W 100yr	1	6	1	5	2	0	0	0	0	2	7	9	20.9
50yr	1	5	1	4	2	0	0	0	0	2	6	8	20.9
036N-037N 032W-031W 100yr	0	6	2	4	2	0	0	0	0	2	6	8	18.0
50yr	0	5	1	4	2	0	0	0	0	2	5	7	19.7
036N-037N 031W-030W 100yr	0	3	1	2	2	0	0	0	0	2	3	5	18.2
50yr	0	2	0	2	2	0	0	0	0	2	2	4	20.7
036N-037N 030W-029W 100yr	0	3	1	2	3	0	0	0	0	3	3	6	15.7
50yr	0	1	0	1	2	0	0	0	0	2	1	3	19.9
036N-037N 029W-028W 100yr	2	2	0	2	2	1	0	0	0	3	4	7	17.9
50yr	2	0	0	0	2	1	0	0	0	3	2	5	19.1
036N-037N 028W-027W 100yr	2	1	0	1	0	1	1	0	0	2	3	5	18.5
50yr	2	0	0	0	0	1	0	0	0	1	2	3	18.9
036N-037N 027W-026W 100yr	1	0	0	0	0	2	0	0	0	2	1	3	17.7
50yr	1	0	0	0	0	1	0	0	0	1	1	2	19.0
036N-037N 026W-025W 100yr	1	1	1	0	0	1	0	0	0	1	2	3	12.6
50yr	1	1	1	0	0	0	0	0	0	0	2	2	11.4
036N-037N 025W-024W 100yr	2	1	1	0	0	0	0	0	0	0	3	3	14.2
50yr	2	0	0	0	0	0	0	0	0	0	2	2	15.9
036N-037N 024W-023W 100yr	1	2	2	0	0	0	0	0	0	0	3	3	12.8
50yr	1	1	1	0	0	0	0	0	0	0	2	2	14.0
036N-037N 023W-022W 100yr	1	2	2	0	0	0	0	0	0	0	3	3	12.5
50yr	1	1	1	0	0	0	0	0	0	0	2	2	13.9

037°N to 038°N

Grid Cell		TD	TS	G	S	S1	S2	S3	S4	S5	H	<H	All	Spd
037N-038N 100W-099W	100yr	1	0	0	0	0	0	0	0	0	0	1	1	12.1
	50yr	1	0	0	0	0	0	0	0	0	0	1	1	12.1
037N-038N 097W-096W	100yr	1	0	0	0	0	0	0	0	0	0	1	1	13.3
	50yr	0	0	0	0	0	0	0	0	0	0	0	0	0.0
037N-038N 096W-095W	100yr	1	0	0	0	0	0	0	0	0	0	1	1	7.6
	50yr	0	0	0	0	0	0	0	0	0	0	0	0	0.0
037N-038N 095W-094W	100yr	4	0	0	0	0	0	0	0	0	0	4	4	29.1
	50yr	3	0	0	0	0	0	0	0	0	0	3	3	29.4
037N-038N 094W-093W	100yr	6	0	0	0	0	0	0	0	0	0	6	6	22.3
	50yr	5	0	0	0	0	0	0	0	0	0	5	5	24.0
037N-038N 093W-092W	100yr	7	0	0	0	0	0	0	0	0	0	7	7	21.4
	50yr	5	0	0	0	0	0	0	0	0	0	5	5	24.4
037N-038N 092W-091W	100yr	5	0	0	0	0	0	0	0	0	0	5	5	19.1
	50yr	3	0	0	0	0	0	0	0	0	0	3	3	21.4
037N-038N 091W-090W	100yr	4	3	3	0	0	0	0	0	0	0	7	7	20.2
	50yr	3	0	0	0	0	0	0	0	0	0	3	3	21.5
037N-038N 090W-089W	100yr	7	2	2	0	0	0	0	0	0	0	9	9	13.8
	50yr	2	0	0	0	0	0	0	0	0	0	2	2	13.5
037N-038N 089W-088W	100yr	9	0	0	0	0	0	0	0	0	0	9	9	14.7
	50yr	3	0	0	0	0	0	0	0	0	0	3	3	16.3
037N-038N 088W-087W	100yr	6	1	0	1	0	0	0	0	0	0	7	7	17.4
	50yr	4	0	0	0	0	0	0	0	0	0	4	4	15.6
037N-038N 087W-086W	100yr	4	1	0	1	0	0	0	0	0	0	5	5	19.3
	50yr	4	0	0	0	0	0	0	0	0	0	4	4	16.2
037N-038N 086W-085W	100yr	3	0	0	0	0	0	0	0	0	0	3	3	28.3
	50yr	3	0	0	0	0	0	0	0	0	0	3	3	28.3
037N-038N 085W-084W	100yr	4	4	4	0	0	0	0	0	0	0	8	8	26.5
	50yr	3	1	1	0	0	0	0	0	0	0	4	4	35.4
037N-038N 084W-083W	100yr	3	4	4	0	0	0	0	0	0	0	7	7	30.5
	50yr	3	1	1	0	0	0	0	0	0	0	4	4	40.0
037N-038N 083W-082W	100yr	4	2	2	0	0	0	0	0	0	0	6	6	15.3
	50yr	2	0	0	0	0	0	0	0	0	0	2	2	23.2
037N-038N 082W-081W	100yr	4	5	4	1	0	0	0	0	0	0	9	9	19.1
	50yr	3	2	1	1	0	0	0	0	0	0	5	5	21.6
037N-038N 081W-080W	100yr	2	1	1	0	0	0	0	0	0	0	3	3	24.8
	50yr	2	0	0	0	0	0	0	0	0	0	2	2	24.6
037N-038N 080W-079W	100yr	5	7	6	1	0	0	0	0	0	0	12	12	17.7
	50yr	4	4	3	1	0	0	0	0	0	0	8	8	16.1
037N-038N 079W-078W	100yr	8	5	4	1	1	0	0	0	0	1	13	14	21.5
	50yr	4	2	1	1	1	0	0	0	0	1	6	7	20.7
037N-038N 078W-077W	100yr	10	6	6	0	2	0	0	0	0	2	16	18	19.7
	50yr	6	0	0	0	1	0	0	0	0	1	6	7	18.6
037N-038N 077W-076W	100yr	6	12	7	5	1	0	0	0	0	1	18	19	19.8
	50yr	5	7	3	4	0	0	0	0	0	0	12	12	17.2

Grid Cell		TD	TS	G	S	S1	S2	S3	S4	S5	H	<H	All	Spd
037N-038N 076W-075W	100yr	6	14	7	7	4	2	0	0	0	6	20	26	17.3
	50yr	4	10	4	6	3	1	0	0	0	4	14	18	16.4
037N-038N 075W-074W	100yr	5	13	11	2	6	6	1	0	0	13	18	31	19.7
	50yr	4	8	6	2	3	4	1	0	0	8	12	20	18.5
037N-038N 074W-073W	100yr	4	16	8	8	8	3	6	0	0	17	20	37	21.0
	50yr	3	12	5	7	4	3	4	0	0	11	15	26	20.4
037N-038N 073W-072W	100yr	2	21	11	10	6	3	6	1	0	16	23	39	21.9
	50yr	2	13	6	7	3	1	4	1	0	9	15	24	23.0
037N-038N 072W-071W	100yr	2	23	13	10	7	4	2	0	0	13	25	38	21.9
	50yr	2	16	8	8	3	4	1	0	0	8	18	26	22.2
037N-038N 071W-070W	100yr	2	17	12	5	7	5	1	0	0	13	19	32	20.8
	50yr	2	11	7	4	6	4	1	0	0	11	13	24	20.9
037N-038N 070W-069W	100yr	3	11	8	3	8	5	2	0	0	15	14	29	20.2
	50yr	2	6	4	2	6	4	1	0	0	11	8	19	20.6
037N-038N 069W-068W	100yr	4	11	6	5	12	3	3	0	0	18	15	33	22.4
	50yr	2	5	2	3	7	1	1	0	0	9	7	16	24.1
037N-038N 068W-067W	100yr	2	15	7	8	10	3	1	1	0	15	17	32	23.7
	50yr	1	10	3	7	5	1	1	1	0	8	11	19	25.3
037N-038N 067W-066W	100yr	3	15	7	8	9	6	1	2	0	18	18	36	22.0
	50yr	3	13	5	8	5	2	0	2	0	9	16	25	21.2
037N-038N 066W-065W	100yr	4	14	6	8	8	8	1	1	0	18	18	36	20.9
	50yr	4	11	5	6	5	5	0	1	0	11	15	26	19.4
037N-038N 065W-064W	100yr	2	12	6	6	12	10	2	0	0	24	14	38	21.7
	50yr	2	9	4	5	11	5	1	0	0	17	11	28	21.0
037N-038N 064W-063W	100yr	3	13	5	8	13	8	2	0	0	23	16	39	22.7
	50yr	3	9	3	6	10	3	1	0	0	14	12	26	23.7
037N-038N 063W-062W	100yr	4	14	7	7	10	9	0	0	0	19	18	37	22.6
	50yr	4	11	5	6	6	3	0	0	0	9	15	24	24.4
037N-038N 062W-061W	100yr	3	11	7	4	8	8	1	0	0	17	14	31	21.9
	50yr	3	10	6	4	7	4	1	0	0	12	13	25	22.9
037N-038N 061W-060W	100yr	1	15	11	4	8	7	3	0	0	18	16	34	23.8
	50yr	1	13	9	4	7	3	1	0	0	11	14	25	24.0
037N-038N 060W-059W	100yr	2	11	9	2	7	8	2	0	0	17	13	30	22.1
	50yr	2	9	7	2	5	3	0	0	0	8	11	19	22.7
037N-038N 059W-058W	100yr	1	11	6	5	3	11	0	0	0	14	12	26	21.6
	50yr	1	8	4	4	2	5	0	0	0	7	9	16	25.3
037N-038N 058W-057W	100yr	2	13	8	5	6	5	1	1	0	13	15	28	23.3
	50yr	2	8	6	2	5	5	0	0	0	10	10	20	24.2
037N-038N 057W-056W	100yr	1	17	9	8	7	4	2	1	0	14	18	32	24.4
	50yr	1	14	8	6	4	4	1	0	0	9	15	24	25.2
037N-038N 056W-055W	100yr	1	13	8	5	6	5	1	0	0	12	14	26	25.7
	50yr	1	10	7	3	3	3	1	0	0	7	11	18	27.8
037N-038N 055W-054W	100yr	1	9	7	2	8	5	0	0	0	13	10	23	22.7
	50yr	1	7	6	1	4	3	0	0	0	7	8	15	24.0
037N-038N 054W-053W	100yr	2	10	8	2	8	6	2	0	0	16	12	28	19.9
	50yr	2	7	6	1	5	3	1	0	0	9	9	18	19.7
037N-038N 053W-052W	100yr	3	7	4	3	7	5	2	0	0	14	10	24	19.7
	50yr	2	6	4	2	4	3	1	0	0	8	8	16	18.9

Grid Cell	TD	TS	G	S	S1	S2	S3	S4	S5	H	<H	All	Spd
037N-038N 052W-051W 100yr	2	7	4	3	6	4	2	0	0	12	9	21	17.2
50yr	1	6	3	3	4	3	1	0	0	8	7	15	17.4
037N-038N 051W-050W 100yr	1	6	2	4	5	5	1	0	0	11	7	18	16.9
50yr	1	5	2	3	4	2	1	0	0	7	6	13	17.3
037N-038N 050W-049W 100yr	1	3	2	1	5	3	0	0	0	8	4	12	21.4
50yr	1	2	1	1	3	1	0	0	0	4	3	7	22.0
037N-038N 049W-048W 100yr	0	5	2	3	5	1	0	0	0	6	5	11	19.1
50yr	0	2	1	1	4	1	0	0	0	5	2	7	18.1
037N-038N 048W-047W 100yr	0	9	3	6	8	4	0	0	0	12	9	21	23.3
50yr	0	4	1	3	5	3	0	0	0	8	4	12	20.0
037N-038N 047W-046W 100yr	0	5	1	4	5	2	0	0	0	7	5	12	25.6
50yr	0	3	1	2	4	1	0	0	0	5	3	8	21.3
037N-038N 046W-045W 100yr	0	5	1	4	3	1	0	0	0	4	5	9	22.6
50yr	0	3	1	2	3	1	0	0	0	4	3	7	20.8
037N-038N 045W-044W 100yr	0	4	2	2	3	2	0	0	0	5	4	9	19.9
50yr	0	3	1	2	3	2	0	0	0	5	3	8	21.4
037N-038N 044W-043W 100yr	0	4	1	3	3	3	0	0	0	6	4	10	24.6
50yr	0	4	1	3	3	3	0	0	0	6	4	10	24.6
037N-038N 043W-042W 100yr	0	3	2	1	5	2	0	0	0	7	3	10	23.2
50yr	0	3	2	1	5	2	0	0	0	7	3	10	23.2
037N-038N 042W-041W 100yr	0	3	1	2	8	1	0	0	0	9	3	12	20.7
50yr	0	2	1	1	7	1	0	0	0	8	2	10	21.8
037N-038N 041W-040W 100yr	2	4	2	2	6	1	0	0	0	7	6	13	20.5
50yr	1	3	2	1	6	1	0	0	0	7	4	11	20.3
037N-038N 040W-039W 100yr	2	4	0	4	7	1	0	0	0	8	6	14	20.6
50yr	1	3	0	3	5	1	0	0	0	6	4	10	20.9
037N-038N 039W-038W 100yr	3	5	1	4	7	1	0	0	0	8	8	16	20.2
50yr	2	5	1	4	5	1	0	0	0	6	7	13	20.7
037N-038N 038W-037W 100yr	4	6	1	5	6	0	0	0	0	6	10	16	22.7
50yr	3	6	1	5	5	0	0	0	0	5	9	14	23.1
037N-038N 037W-036W 100yr	3	5	2	3	6	0	0	0	0	6	8	14	21.3
50yr	2	5	2	3	5	0	0	0	0	5	7	12	20.9
037N-038N 036W-035W 100yr	1	3	1	2	6	0	0	0	0	6	4	10	23.0
50yr	1	3	1	2	5	0	0	0	0	5	4	9	22.9
037N-038N 035W-034W 100yr	2	3	1	2	4	0	0	0	0	4	5	9	22.0
50yr	2	3	1	2	3	0	0	0	0	3	5	8	21.7
037N-038N 034W-033W 100yr	2	3	1	2	2	0	0	0	0	2	5	7	23.6
50yr	2	3	1	2	1	0	0	0	0	1	5	6	23.5
037N-038N 033W-032W 100yr	0	6	3	3	3	0	0	0	0	3	6	9	24.1
50yr	0	5	3	2	2	0	0	0	0	2	5	7	24.9
037N-038N 032W-031W 100yr	1	8	4	4	3	0	0	0	0	3	9	12	24.2
50yr	1	7	4	3	2	0	0	0	0	2	8	10	24.7
037N-038N 031W-030W 100yr	0	6	4	2	3	0	0	0	0	3	6	9	20.9
50yr	0	6	4	2	2	0	0	0	0	2	6	8	20.4
037N-038N 030W-029W 100yr	0	5	3	2	3	0	0	0	0	3	5	8	15.6
50yr	0	4	2	2	1	0	0	0	0	1	4	5	17.2
037N-038N 029W-028W 100yr	1	5	2	3	3	0	0	0	0	3	6	9	17.4
50yr	1	4	1	3	2	0	0	0	0	2	5	7	17.6

Grid Cell	TD	TS	G	S	S1	S2	S3	S4	S5	H	<H	All	Spd
037N-038N 028W-027W 100yr	1	4	1	3	3	0	0	0	0	3	5	8	18.1
50yr	1	3	1	2	2	0	0	0	0	2	4	6	16.9
037N-038N 027W-026W 100yr	1	3	1	2	1	1	0	0	0	2	4	6	21.0
50yr	1	2	1	1	0	1	0	0	0	1	3	4	20.6
037N-038N 026W-025W 100yr	2	3	1	2	1	2	0	0	0	3	5	8	16.6
50yr	2	2	1	1	0	1	0	0	0	1	4	5	17.2
037N-038N 025W-024W 100yr	4	1	0	1	0	0	0	0	0	0	5	5	12.6
50yr	4	0	0	0	0	0	0	0	0	0	4	4	13.0
037N-038N 024W-023W 100yr	4	1	1	0	0	0	0	0	0	0	5	5	10.5
50yr	4	0	0	0	0	0	0	0	0	0	4	4	10.4
037N-038N 023W-022W 100yr	4	1	1	0	0	0	0	0	0	0	5	5	11.6
50yr	4	1	1	0	0	0	0	0	0	0	5	5	11.6
037N-038N 022W-021W 100yr	2	1	1	0	0	0	0	0	0	0	3	3	10.1
50yr	2	1	1	0	0	0	0	0	0	0	3	3	10.1
037N-038N 021W-020W 100yr	0	1	0	1	0	0	0	0	0	0	1	1	4.4
50yr	0	0	0	0	0	0	0	0	0	0	0	0	0.0
037N-038N 019W-018W 100yr	1	0	0	0	0	0	0	0	0	0	1	1	6.8
50yr	1	0	0	0	0	0	0	0	0	0	1	1	6.8
037N-038N 018W-017W 100yr	1	0	0	0	0	0	0	0	0	0	1	1	6.0
50yr	1	0	0	0	0	0	0	0	0	0	1	1	6.0
037N-038N 017W-016W 100yr	1	0	0	0	0	0	0	0	0	0	1	1	5.6
50yr	1	0	0	0	0	0	0	0	0	0	1	1	5.6
037N-038N 015W-014W 100yr	1	0	0	0	0	0	0	0	0	0	1	1	18.6
50yr	1	0	0	0	0	0	0	0	0	0	1	1	18.6
037N-038N 013W-012W 100yr	1	0	0	0	0	0	0	0	0	0	1	1	28.0
50yr	1	0	0	0	0	0	0	0	0	0	1	1	28.0
037N-038N 012W-011W 100yr	1	0	0	0	0	0	0	0	0	0	1	1	29.7
50yr	1	0	0	0	0	0	0	0	0	0	1	1	29.7
037N-038N 011W-010W 100yr	1	0	0	0	0	0	0	0	0	0	1	1	31.3
50yr	1	0	0	0	0	0	0	0	0	0	1	1	31.3

038°N to 039°N

038N-039N 100W-099W 100yr	1	0	0	0	0	0	0	0	0	0	1	1	13.3
50yr	1	0	0	0	0	0	0	0	0	0	1	1	13.3
038N-039N 099W-098W 100yr	1	0	0	0	0	0	0	0	0	0	1	1	13.3
50yr	1	0	0	0	0	0	0	0	0	0	1	1	13.3
038N-039N 096W-095W 100yr	1	0	0	0	0	0	0	0	0	0	1	1	5.1
50yr	0	0	0	0	0	0	0	0	0	0	0	0	0.0
038N-039N 095W-094W 100yr	2	0	0	0	0	0	0	0	0	0	2	2	16.5
50yr	0	0	0	0	0	0	0	0	0	0	0	0	0.0
038N-039N 094W-093W 100yr	1	0	0	0	0	0	0	0	0	0	1	1	30.0
50yr	1	0	0	0	0	0	0	0	0	0	1	1	30.0
038N-039N 093W-092W 100yr	5	0	0	0	0	0	0	0	0	0	5	5	23.0
50yr	4	0	0	0	0	0	0	0	0	0	4	4	24.5
038N-039N 092W-091W 100yr	6	0	0	0	0	0	0	0	0	0	6	6	22.9
50yr	5	0	0	0	0	0	0	0	0	0	5	5	24.0

Grid Cell	TD	TS	G	S	S1	S2	S3	S4	S5	H	<H	All	Spd
038N-039N 091W-090W 100yr	5	0	0	0	0	0	0	0	0	0	5	5	23.6
50yr	4	0	0	0	0	0	0	0	0	0	4	4	23.8
038N-039N 090W-089W 100yr	6	1	1	0	0	0	0	0	0	0	7	7	23.4
50yr	3	0	0	0	0	0	0	0	0	0	3	3	27.9
038N-039N 089W-088W 100yr	6	1	1	0	0	0	0	0	0	0	7	7	19.4
50yr	1	0	0	0	0	0	0	0	0	0	1	1	22.7
038N-039N 088W-087W 100yr	8	0	0	0	0	0	0	0	0	0	8	8	16.1
50yr	3	0	0	0	0	0	0	0	0	0	3	3	19.2
038N-039N 087W-086W 100yr	8	1	0	1	0	0	0	0	0	0	9	9	16.4
50yr	4	0	0	0	0	0	0	0	0	0	4	4	16.5
038N-039N 086W-085W 100yr	6	0	0	0	0	0	0	0	0	0	6	6	15.5
50yr	5	0	0	0	0	0	0	0	0	0	5	5	16.4
038N-039N 085W-084W 100yr	6	0	0	0	0	0	0	0	0	0	6	6	16.9
50yr	5	0	0	0	0	0	0	0	0	0	5	5	17.4
038N-039N 084W-083W 100yr	5	3	3	0	0	0	0	0	0	0	8	8	26.2
50yr	5	2	2	0	0	0	0	0	0	0	7	7	26.2
038N-039N 083W-082W 100yr	6	2	2	0	0	0	0	0	0	0	8	8	23.8
50yr	5	1	1	0	0	0	0	0	0	0	6	6	25.9
038N-039N 082W-081W 100yr	6	5	4	1	0	0	0	0	0	0	11	11	24.6
50yr	4	3	2	1	0	0	0	0	0	0	7	7	27.2
038N-039N 081W-080W 100yr	5	1	1	0	0	0	0	0	0	0	6	6	16.9
50yr	3	0	0	0	0	0	0	0	0	0	3	3	16.2
038N-039N 080W-079W 100yr	4	4	4	0	0	0	0	0	0	0	8	8	16.5
50yr	4	2	2	0	0	0	0	0	0	0	6	6	14.9
038N-039N 079W-078W 100yr	6	5	4	1	0	0	0	0	0	0	11	11	19.2
50yr	5	3	2	1	0	0	0	0	0	0	8	8	17.3
038N-039N 078W-077W 100yr	6	8	6	2	1	0	0	0	0	1	14	15	19.1
50yr	3	2	1	1	1	0	0	0	0	1	5	6	20.9
038N-039N 077W-076W 100yr	4	6	3	3	1	0	0	0	0	1	10	11	21.1
50yr	1	2	0	2	0	0	0	0	0	0	3	3	18.7
038N-039N 076W-075W 100yr	2	11	6	5	2	0	0	0	0	2	13	15	22.1
50yr	1	6	2	4	1	0	0	0	0	1	7	8	22.1
038N-039N 075W-074W 100yr	2	6	5	1	3	4	0	0	0	7	8	15	22.0
50yr	1	3	2	1	1	2	0	0	0	3	4	7	20.9
038N-039N 074W-073W 100yr	1	9	7	2	4	5	3	0	0	12	10	22	23.4
50yr	1	6	4	2	1	3	2	0	0	6	7	13	20.6
038N-039N 073W-072W 100yr	2	13	9	4	4	2	6	1	0	13	15	28	23.6
50yr	2	7	4	3	2	0	4	1	0	7	9	16	22.1
038N-039N 072W-071W 100yr	1	22	9	13	6	3	4	1	0	14	23	37	22.1
50yr	1	15	5	10	1	1	2	1	0	5	16	21	21.7
038N-039N 071W-070W 100yr	1	23	14	9	5	2	2	0	0	9	24	33	23.9
50yr	1	19	12	7	2	2	1	0	0	5	20	25	23.7
038N-039N 070W-069W 100yr	1	18	11	7	4	5	0	0	0	9	19	28	24.6
50yr	1	12	6	6	2	5	0	0	0	7	13	20	25.2
038N-039N 069W-068W 100yr	2	11	6	5	7	6	3	0	0	16	13	29	24.2
50yr	2	4	0	4	5	5	1	0	0	11	6	17	26.4
038N-039N 068W-067W 100yr	2	7	5	2	11	3	1	0	0	15	9	24	22.9
50yr	2	2	1	1	8	3	0	0	0	11	4	15	25.0

Grid Cell	TD	TS	G	S	S1	S2	S3	S4	S5	H	<H	All	Spd
038N-039N 067W-066W 100yr	1	11	6	5	9	3	2	2	0	16	12	28	21.8
50yr	1	7	3	4	6	2	0	2	0	10	8	18	23.0
038N-039N 066W-065W 100yr	1	11	6	5	10	5	0	2	0	17	12	29	22.4
50yr	1	9	5	4	5	3	0	2	0	10	10	20	21.4
038N-039N 065W-064W 100yr	0	13	7	6	10	6	1	1	0	18	13	31	21.3
50yr	0	11	6	5	6	3	1	1	0	11	11	22	20.8
038N-039N 064W-063W 100yr	1	14	7	7	9	7	1	0	0	17	15	32	21.4
50yr	1	10	4	6	7	4	1	0	0	12	11	23	20.9
038N-039N 063W-062W 100yr	1	15	6	9	9	6	0	1	0	16	16	32	21.0
50yr	1	10	3	7	5	1	0	1	0	7	11	18	22.5
038N-039N 062W-061W 100yr	2	17	10	7	8	10	1	0	0	19	19	38	20.8
50yr	2	11	5	6	5	3	1	0	0	9	13	22	20.0
038N-039N 061W-060W 100yr	2	17	11	6	7	7	2	0	0	16	19	35	21.9
50yr	2	14	8	6	6	3	1	0	0	10	16	26	21.8
038N-039N 060W-059W 100yr	1	15	11	4	10	3	2	0	0	15	16	31	23.8
50yr	1	12	8	4	7	2	1	0	0	10	13	23	22.9
038N-039N 059W-058W 100yr	0	13	10	3	11	5	0	0	0	16	13	29	25.7
50yr	0	11	8	3	5	2	0	0	0	7	11	18	27.6
038N-039N 058W-057W 100yr	0	6	3	3	7	5	0	0	0	12	6	18	25.4
50yr	0	5	3	2	4	3	0	0	0	7	5	12	27.4
038N-039N 057W-056W 100yr	0	9	4	5	7	6	0	1	0	14	9	23	26.1
50yr	0	8	4	4	5	5	0	0	0	10	8	18	25.2
038N-039N 056W-055W 100yr	1	9	5	4	5	5	1	1	0	12	10	22	27.7
50yr	1	7	4	3	4	4	1	0	0	9	8	17	27.3
038N-039N 055W-054W 100yr	1	6	4	2	5	3	1	0	0	9	7	16	29.1
50yr	1	5	3	2	3	2	1	0	0	6	6	12	30.9
038N-039N 054W-053W 100yr	1	10	7	3	8	3	0	0	0	11	11	22	25.7
50yr	1	8	5	3	6	2	0	0	0	8	9	17	28.1
038N-039N 053W-052W 100yr	2	9	5	4	4	6	0	0	0	10	11	21	21.5
50yr	2	6	3	3	3	3	0	0	0	6	8	14	22.7
038N-039N 052W-051W 100yr	0	13	5	8	2	4	1	0	0	7	13	20	19.5
50yr	0	9	4	5	2	2	0	0	0	4	9	13	20.2
038N-039N 051W-050W 100yr	0	12	5	7	4	4	1	0	0	9	12	21	19.9
50yr	0	8	4	4	4	1	1	0	0	6	8	14	21.2
038N-039N 050W-049W 100yr	1	9	5	4	2	7	0	0	0	9	10	19	22.3
50yr	1	7	4	3	2	2	0	0	0	4	8	12	23.4
038N-039N 049W-048W 100yr	1	7	4	3	3	4	0	0	0	7	8	15	21.0
50yr	1	5	3	2	3	1	0	0	0	4	6	10	22.6
038N-039N 048W-047W 100yr	1	8	5	3	5	2	0	0	0	7	9	16	22.1
50yr	1	5	3	2	3	2	0	0	0	5	6	11	21.3
038N-039N 047W-046W 100yr	1	8	4	4	6	4	0	0	0	10	9	19	24.1
50yr	1	6	3	3	4	3	0	0	0	7	7	14	21.6
038N-039N 046W-045W 100yr	1	7	3	4	6	3	0	0	0	9	8	17	22.2
50yr	1	5	2	3	5	2	0	0	0	7	6	13	21.8
038N-039N 045W-044W 100yr	1	8	5	3	5	2	0	0	0	7	9	16	21.0
50yr	1	6	4	2	4	1	0	0	0	5	7	12	21.5
038N-039N 044W-043W 100yr	0	9	5	4	6	1	0	0	0	7	9	16	21.6
50yr	0	7	4	3	5	1	0	0	0	6	7	13	21.2

Grid Cell	TD	TS	G	S	S1	S2	S3	S4	S5	H	<H	All	Spd
038N-039N 043W-042W 100yr	0	4	4	0	5	1	0	0	0	6	4	10	24.0
50yr	0	4	4	0	4	1	0	0	0	5	4	9	25.5
038N-039N 042W-041W 100yr	0	3	3	0	5	1	0	0	0	6	3	9	19.8
50yr	0	3	3	0	4	1	0	0	0	5	3	8	21.2
038N-039N 041W-040W 100yr	1	4	3	1	7	2	0	0	0	9	5	14	22.2
50yr	1	3	3	0	7	2	0	0	0	9	4	13	22.0
038N-039N 040W-039W 100yr	3	2	0	2	5	1	0	0	0	6	5	11	24.0
50yr	3	1	0	1	5	1	0	0	0	6	4	10	24.0
038N-039N 039W-038W 100yr	2	5	0	5	4	1	0	0	0	5	7	12	23.1
50yr	2	4	0	4	3	1	0	0	0	4	6	10	23.7
038N-039N 038W-037W 100yr	3	3	0	3	4	0	0	0	0	4	6	10	22.8
50yr	3	3	0	3	2	0	0	0	0	2	6	8	24.2
038N-039N 037W-036W 100yr	2	3	2	1	5	0	0	0	0	5	5	10	22.4
50yr	1	3	2	1	4	0	0	0	0	4	4	8	23.2
038N-039N 036W-035W 100yr	2	6	3	3	3	1	0	0	0	4	8	12	23.7
50yr	1	5	3	2	3	1	0	0	0	4	6	10	24.8
038N-039N 035W-034W 100yr	2	3	1	2	4	1	0	0	0	5	5	10	24.3
50yr	1	3	1	2	4	1	0	0	0	5	4	9	24.5
038N-039N 034W-033W 100yr	1	3	1	2	2	0	0	0	0	2	4	6	23.6
50yr	0	3	1	2	2	0	0	0	0	2	3	5	23.7
038N-039N 033W-032W 100yr	1	1	0	1	0	0	0	0	0	0	2	2	25.7
50yr	0	1	0	1	0	0	0	0	0	0	1	1	28.4
038N-039N 032W-031W 100yr	1	4	1	3	0	0	0	0	0	0	5	5	31.4
50yr	1	3	1	2	0	0	0	0	0	0	4	4	33.7
038N-039N 031W-030W 100yr	0	6	3	3	3	0	0	0	0	3	6	9	23.8
50yr	0	5	3	2	2	0	0	0	0	2	5	7	25.9
038N-039N 030W-029W 100yr	0	5	3	2	3	0	0	0	0	3	5	8	22.2
50yr	0	5	3	2	2	0	0	0	0	2	5	7	24.4
038N-039N 029W-028W 100yr	1	6	3	3	2	0	0	0	0	2	7	9	20.7
50yr	1	5	2	3	2	0	0	0	0	2	6	8	22.1
038N-039N 028W-027W 100yr	1	4	1	3	2	0	0	0	0	2	5	7	19.1
50yr	1	4	1	3	2	0	0	0	0	2	5	7	19.1
038N-039N 027W-026W 100yr	1	5	0	5	1	0	0	0	0	1	6	7	17.4
50yr	1	3	0	3	1	0	0	0	0	1	4	5	16.9
038N-039N 026W-025W 100yr	1	4	0	4	0	2	0	0	0	2	5	7	20.5
50yr	1	2	0	2	0	1	0	0	0	1	3	4	23.4
038N-039N 025W-024W 100yr	2	3	1	2	0	2	0	0	0	2	5	7	18.5
50yr	2	3	1	2	0	1	0	0	0	1	5	6	19.5
038N-039N 024W-023W 100yr	2	4	2	2	0	1	0	0	0	1	6	7	19.5
50yr	2	3	2	1	0	1	0	0	0	1	5	6	20.2
038N-039N 023W-022W 100yr	4	3	2	1	0	0	0	0	0	0	7	7	12.4
50yr	4	2	2	0	0	0	0	0	0	0	6	6	12.2
038N-039N 022W-021W 100yr	3	4	3	1	0	0	0	0	0	0	7	7	11.2
50yr	3	3	3	0	0	0	0	0	0	0	6	6	11.7
038N-039N 021W-020W 100yr	1	2	1	1	0	0	0	0	0	0	3	3	7.1
50yr	1	1	1	0	0	0	0	0	0	0	2	2	8.4
038N-039N 020W-019W 100yr	1	1	1	0	0	0	0	0	0	0	2	2	8.4
50yr	1	1	1	0	0	0	0	0	0	0	2	2	8.4

Grid Cell	TD	TS	G	S	S1	S2	S3	S4	S5	H	<H	All	Spd
038N-039N 019W-018W 100yr	1	1	1	0	0	0	0	0	0	0	2	2	8.8
50yr	1	1	1	0	0	0	0	0	0	0	2	2	8.8
038N-039N 018W-017W 100yr	0	1	1	0	0	0	0	0	0	0	1	1	10.9
50yr	0	1	1	0	0	0	0	0	0	0	1	1	10.9
038N-039N 017W-016W 100yr	1	2	2	0	0	0	0	0	0	0	3	3	11.3
50yr	1	2	2	0	0	0	0	0	0	0	3	3	11.3
038N-039N 016W-015W 100yr	0	2	2	0	0	0	0	0	0	0	2	2	13.8
50yr	0	2	2	0	0	0	0	0	0	0	2	2	13.8
038N-039N 015W-014W 100yr	1	1	1	0	0	0	0	0	0	0	2	2	14.2
50yr	1	1	1	0	0	0	0	0	0	0	2	2	14.2
038N-039N 014W-013W 100yr	1	1	1	0	0	0	0	0	0	0	2	2	20.4
50yr	1	1	1	0	0	0	0	0	0	0	2	2	20.4
038N-039N 013W-012W 100yr	1	1	1	0	0	0	0	0	0	0	2	2	20.4
50yr	1	1	1	0	0	0	0	0	0	0	2	2	20.4
038N-039N 012W-011W 100yr	0	1	1	0	0	0	0	0	0	0	1	1	15.6
50yr	0	1	1	0	0	0	0	0	0	0	1	1	15.6
038N-039N 011W-010W 100yr	1	1	1	0	0	0	0	0	0	0	2	2	23.5
50yr	1	1	1	0	0	0	0	0	0	0	2	2	23.5
038N-039N 010W-009W 100yr	1	0	0	0	0	0	0	0	0	0	1	1	31.3
50yr	1	0	0	0	0	0	0	0	0	0	1	1	31.3
038N-039N 009W-008W 100yr	1	0	0	0	0	0	0	0	0	0	1	1	23.5
50yr	1	0	0	0	0	0	0	0	0	0	1	1	23.5
038N-039N 008W-007W 100yr	1	0	0	0	0	0	0	0	0	0	1	1	23.5
50yr	1	0	0	0	0	0	0	0	0	0	1	1	23.5
038N-039N 007W-006W 100yr	1	0	0	0	0	0	0	0	0	0	1	1	11.7
50yr	1	0	0	0	0	0	0	0	0	0	1	1	11.7
038N-039N 006W-005W 100yr	1	0	0	0	0	0	0	0	0	0	1	1	9.1
50yr	1	0	0	0	0	0	0	0	0	0	1	1	9.1
038N-039N 005W-004W 100yr	1	0	0	0	0	0	0	0	0	0	1	1	3.9
50yr	1	0	0	0	0	0	0	0	0	0	1	1	3.9
038N-039N 004W-003W 100yr	1	0	0	0	0	0	0	0	0	0	1	1	2.0
50yr	1	0	0	0	0	0	0	0	0	0	1	1	2.0

039°N to 040°N

Grid Cell	TD	TS	G	S	S1	S2	S3	S4	S5	H	<H	All	Spd
039N-040N 099W-098W 100yr	1	0	0	0	0	0	0	0	0	0	1	1	13.8
50yr	1	0	0	0	0	0	0	0	0	0	1	1	13.8
039N-040N 098W-097W 100yr	1	0	0	0	0	0	0	0	0	0	1	1	13.8
50yr	1	0	0	0	0	0	0	0	0	0	1	1	13.8
039N-040N 095W-094W 100yr	2	0	0	0	0	0	0	0	0	0	2	2	16.6
50yr	0	0	0	0	0	0	0	0	0	0	0	0	0.0
039N-040N 092W-091W 100yr	2	0	0	0	0	0	0	0	0	0	2	2	32.6
50yr	2	0	0	0	0	0	0	0	0	0	2	2	32.6
039N-040N 091W-090W 100yr	2	0	0	0	0	0	0	0	0	0	2	2	31.8
50yr	2	0	0	0	0	0	0	0	0	0	2	2	31.8
039N-040N 090W-089W 100yr	4	0	0	0	0	0	0	0	0	0	4	4	28.5
50yr	3	0	0	0	0	0	0	0	0	0	3	3	29.6

Grid Cell	TD	TS	G	S	S1	S2	S3	S4	S5	H	<H	All	Spd
039N-040N 089W-088W 100yr	4	1	1	0	0	0	0	0	0	0	5	5	28.1
50yr	2	0	0	0	0	0	0	0	0	0	2	2	31.7
039N-040N 088W-087W 100yr	3	1	1	0	0	0	0	0	0	0	4	4	24.8
50yr	0	0	0	0	0	0	0	0	0	0	0	0	0.0
039N-040N 087W-086W 100yr	3	1	0	1	0	0	0	0	0	0	4	4	18.2
50yr	0	0	0	0	0	0	0	0	0	0	0	0	0.0
039N-040N 086W-085W 100yr	6	1	0	1	0	0	0	0	0	0	7	7	17.3
50yr	2	0	0	0	0	0	0	0	0	0	2	2	17.9
039N-040N 085W-084W 100yr	6	0	0	0	0	0	0	0	0	0	6	6	16.5
50yr	3	0	0	0	0	0	0	0	0	0	3	3	14.8
039N-040N 084W-083W 100yr	4	1	1	0	0	0	0	0	0	0	5	5	21.0
50yr	3	1	1	0	0	0	0	0	0	0	4	4	16.6
039N-040N 083W-082W 100yr	4	1	1	0	0	0	0	0	0	0	5	5	21.3
50yr	3	1	1	0	0	0	0	0	0	0	4	4	16.9
039N-040N 082W-081W 100yr	4	4	4	0	0	0	0	0	0	0	8	8	30.8
50yr	3	3	3	0	0	0	0	0	0	0	6	6	30.1
039N-040N 081W-080W 100yr	5	4	4	0	0	0	0	0	0	0	9	9	27.2
50yr	2	3	3	0	0	0	0	0	0	0	5	5	28.9
039N-040N 080W-079W 100yr	3	1	1	0	0	0	0	0	0	0	4	4	19.7
50yr	1	1	1	0	0	0	0	0	0	0	2	2	16.1
039N-040N 079W-078W 100yr	2	2	2	0	0	0	0	0	0	0	4	4	25.1
50yr	2	1	1	0	0	0	0	0	0	0	3	3	22.7
039N-040N 078W-077W 100yr	4	7	6	1	1	0	0	0	0	1	11	12	24.3
50yr	3	3	2	1	1	0	0	0	0	1	6	7	25.5
039N-040N 077W-076W 100yr	5	7	4	3	0	0	0	0	0	0	12	12	17.9
50yr	1	4	2	2	0	0	0	0	0	0	5	5	19.7
039N-040N 076W-075W 100yr	6	9	6	3	1	0	0	0	0	1	15	16	21.4
50yr	2	6	4	2	0	0	0	0	0	0	8	8	23.5
039N-040N 075W-074W 100yr	1	7	4	3	2	1	0	0	0	3	8	11	24.9
50yr	1	5	2	3	0	1	0	0	0	1	6	7	27.4
039N-040N 074W-073W 100yr	1	6	4	2	3	5	1	0	0	9	7	16	26.1
50yr	1	4	2	2	1	3	0	0	0	4	5	9	25.0
039N-040N 073W-072W 100yr	1	8	7	1	1	4	1	0	0	6	9	15	26.5
50yr	1	4	3	1	1	3	0	0	0	4	5	9	24.0
039N-040N 072W-071W 100yr	2	15	8	7	4	4	3	1	0	12	17	29	22.4
50yr	2	8	3	5	2	1	2	1	0	6	10	16	20.8
039N-040N 071W-070W 100yr	2	20	9	11	5	2	4	0	0	11	22	33	21.7
50yr	2	14	6	8	2	0	2	0	0	4	16	20	20.7
039N-040N 070W-069W 100yr	1	24	14	10	5	1	2	0	0	8	25	33	23.3
50yr	1	17	9	8	3	0	1	0	0	4	18	22	23.5
039N-040N 069W-068W 100yr	0	24	14	10	4	5	0	0	0	9	24	33	25.6
50yr	0	16	7	9	1	3	0	0	0	4	16	20	26.9
039N-040N 068W-067W 100yr	2	15	7	8	11	5	0	0	0	16	17	33	26.3
50yr	2	10	2	8	6	4	0	0	0	10	12	22	28.5
039N-040N 067W-066W 100yr	2	10	5	5	13	2	2	0	0	17	12	29	26.5
50yr	2	6	2	4	11	2	0	0	0	13	8	21	27.8
039N-040N 066W-065W 100yr	2	16	9	7	10	4	3	1	0	18	18	36	24.8
50yr	2	12	6	6	6	3	1	1	0	11	14	25	24.8

Grid Cell	TD	TS	G	S	S1	S2	S3	S4	S5	H	<H	All	Spd
039N-040N 065W-064W 100yr	1	14	5	9	10	4	2	2	0	18	15	33	24.2
50yr	1	12	5	7	6	3	1	2	0	12	13	25	24.1
039N-040N 064W-063W 100yr	1	14	7	7	13	5	1	2	0	21	15	36	24.5
50yr	1	11	6	5	9	3	0	2	0	14	12	26	24.2
039N-040N 063W-062W 100yr	1	12	4	8	8	4	1	2	0	15	13	28	22.5
50yr	1	10	3	7	6	2	0	2	0	10	11	21	23.1
039N-040N 062W-061W 100yr	1	15	5	10	12	6	1	1	0	20	16	36	23.7
50yr	1	7	1	6	8	3	0	1	0	12	8	20	23.4
039N-040N 061W-060W 100yr	2	12	5	7	9	5	1	1	0	16	14	30	21.7
50yr	2	5	1	4	8	2	0	1	0	11	7	18	20.2
039N-040N 060W-059W 100yr	2	14	8	6	11	3	2	0	0	16	16	32	23.7
50yr	2	10	6	4	8	2	1	0	0	11	12	23	22.4
039N-040N 059W-058W 100yr	1	18	11	7	8	3	2	0	0	13	19	32	24.1
50yr	1	14	8	6	4	1	1	0	0	6	15	21	23.3
039N-040N 058W-057W 100yr	0	15	10	5	6	3	1	0	0	10	15	25	24.0
50yr	0	12	7	5	3	1	1	0	0	5	12	17	24.2
039N-040N 057W-056W 100yr	0	13	6	7	6	5	0	0	0	11	13	24	26.5
50yr	0	10	5	5	4	3	0	0	0	7	10	17	27.2
039N-040N 056W-055W 100yr	1	11	5	6	8	4	0	1	0	13	12	25	26.8
50yr	1	8	5	3	8	2	0	0	0	10	9	19	26.9
039N-040N 055W-054W 100yr	0	10	2	8	7	3	1	1	0	12	10	22	29.1
50yr	0	7	2	5	7	2	1	0	0	10	7	17	28.7
039N-040N 054W-053W 100yr	1	10	3	7	7	3	0	1	0	11	11	22	26.0
50yr	1	8	2	6	5	2	0	0	0	7	9	16	27.1
039N-040N 053W-052W 100yr	2	10	3	7	6	3	0	0	0	9	12	21	26.7
50yr	2	7	2	5	5	2	0	0	0	7	9	16	29.4
039N-040N 052W-051W 100yr	1	7	3	4	6	4	0	0	0	10	8	18	27.3
50yr	1	6	3	3	5	3	0	0	0	8	7	15	28.3
039N-040N 051W-050W 100yr	1	6	1	5	3	4	0	0	0	7	7	14	22.9
50yr	1	5	1	4	3	3	0	0	0	6	6	12	21.9
039N-040N 050W-049W 100yr	1	8	1	7	2	4	0	0	0	6	9	15	24.9
50yr	1	6	1	5	1	2	0	0	0	3	7	10	25.0
039N-040N 049W-048W 100yr	0	7	1	6	4	7	0	0	0	11	7	18	26.0
50yr	0	5	1	4	3	2	0	0	0	5	5	10	26.3
039N-040N 048W-047W 100yr	0	6	3	3	7	4	0	0	0	11	6	17	22.5
50yr	0	4	2	2	5	1	0	0	0	6	4	10	19.4
039N-040N 047W-046W 100yr	0	6	3	3	5	1	0	0	0	6	6	12	24.1
50yr	0	4	2	2	4	0	0	0	0	4	4	8	16.3
039N-040N 046W-045W 100yr	0	4	2	2	3	2	0	0	0	5	4	9	22.5
50yr	0	1	0	1	3	2	0	0	0	5	1	6	21.6
039N-040N 045W-044W 100yr	1	3	1	2	4	4	0	0	0	8	4	12	17.7
50yr	0	2	0	2	4	3	0	0	0	7	2	9	17.4
039N-040N 044W-043W 100yr	1	8	3	5	3	2	0	0	0	5	9	14	18.8
50yr	0	6	2	4	3	1	0	0	0	4	6	10	17.5
039N-040N 043W-042W 100yr	0	5	2	3	6	1	0	0	0	7	5	12	25.5
50yr	0	3	2	1	5	0	0	0	0	5	3	8	27.4
039N-040N 042W-041W 100yr	0	6	2	4	5	0	0	0	0	5	6	11	23.7
50yr	0	3	1	2	4	0	0	0	0	4	3	7	26.5

Grid Cell	TD	TS	G	S	S1	S2	S3	S4	S5	H	<H	All	Spd
039N-040N 041W-040W 100yr	0	5	3	2	8	0	0	0	0	8	5	13	23.7
50yr	0	3	1	2	7	0	0	0	0	7	3	10	25.4
039N-040N 040W-039W 100yr	1	5	3	2	7	1	0	0	0	8	6	14	22.3
50yr	1	2	1	1	7	1	0	0	0	8	3	11	22.0
039N-040N 039W-038W 100yr	1	6	3	3	5	2	0	0	0	7	7	14	24.4
50yr	1	3	1	2	5	2	0	0	0	7	4	11	23.9
039N-040N 038W-037W 100yr	2	5	1	4	4	1	0	0	0	5	7	12	23.7
50yr	2	3	0	3	3	1	0	0	0	4	5	9	24.3
039N-040N 037W-036W 100yr	1	4	1	3	4	0	0	0	0	4	5	9	24.3
50yr	1	3	0	3	4	0	0	0	0	4	4	8	24.4
039N-040N 036W-035W 100yr	2	4	2	2	2	0	0	0	0	2	6	8	25.1
50yr	2	3	2	1	2	0	0	0	0	2	5	7	26.7
039N-040N 035W-034W 100yr	2	2	1	1	3	1	0	0	0	4	4	8	23.3
50yr	2	1	1	0	3	1	0	0	0	4	3	7	25.0
039N-040N 034W-033W 100yr	0	3	1	2	3	1	0	0	0	4	3	7	22.4
50yr	0	3	1	2	3	1	0	0	0	4	3	7	22.4
039N-040N 033W-032W 100yr	1	3	1	2	1	0	0	0	0	1	4	5	22.3
50yr	0	3	1	2	1	0	0	0	0	1	3	4	22.2
039N-040N 032W-031W 100yr	1	3	0	3	1	0	0	0	0	1	4	5	29.0
50yr	1	3	0	3	1	0	0	0	0	1	4	5	29.0
039N-040N 031W-030W 100yr	1	4	3	1	0	0	0	0	0	0	5	5	26.4
50yr	1	2	2	0	0	0	0	0	0	0	3	3	32.1
039N-040N 030W-029W 100yr	0	5	3	2	1	0	0	0	0	1	5	6	18.3
50yr	0	3	2	1	0	0	0	0	0	0	3	3	22.8
039N-040N 029W-028W 100yr	0	6	3	3	1	0	0	0	0	1	6	7	21.5
50yr	0	4	2	2	1	0	0	0	0	1	4	5	25.3
039N-040N 028W-027W 100yr	1	3	1	2	3	0	0	0	0	3	4	7	24.6
50yr	1	2	1	1	2	0	0	0	0	2	3	5	26.1
039N-040N 027W-026W 100yr	0	4	1	3	4	0	0	0	0	4	4	8	22.6
50yr	0	3	1	2	3	0	0	0	0	3	3	6	23.0
039N-040N 026W-025W 100yr	0	4	1	3	3	1	0	0	0	4	4	8	20.0
50yr	0	3	1	2	2	0	0	0	0	2	3	5	20.3
039N-040N 025W-024W 100yr	0	6	1	5	0	1	0	0	0	1	6	7	16.3
50yr	0	4	1	3	0	0	0	0	0	0	4	4	16.2
039N-040N 024W-023W 100yr	0	4	2	2	0	1	0	0	0	1	4	5	21.2
50yr	0	3	2	1	0	1	0	0	0	1	3	4	22.6
039N-040N 023W-022W 100yr	2	1	1	0	0	1	0	0	0	1	3	4	18.1
50yr	2	1	1	0	0	1	0	0	0	1	3	4	18.1
039N-040N 022W-021W 100yr	3	2	2	0	0	1	0	0	0	1	5	6	18.0
50yr	3	2	2	0	0	1	0	0	0	1	5	6	18.0
039N-040N 021W-020W 100yr	1	1	1	0	0	0	0	0	0	0	2	2	20.2
50yr	1	1	1	0	0	0	0	0	0	0	2	2	20.2
039N-040N 019W-018W 100yr	0	1	1	0	1	0	0	0	0	1	1	2	13.8
50yr	0	1	1	0	1	0	0	0	0	1	1	2	13.8
039N-040N 018W-017W 100yr	0	1	1	0	1	0	0	0	0	1	1	2	14.0
50yr	0	1	1	0	1	0	0	0	0	1	1	2	14.0
039N-040N 017W-016W 100yr	0	2	2	0	0	0	0	0	0	0	2	2	13.9
50yr	0	2	2	0	0	0	0	0	0	0	2	2	13.9

Grid Cell	TD	TS	G	S	S1	S2	S3	S4	S5	H	<H	All	Spd
039N-040N 016W-015W 100yr	1	1	1	0	0	0	0	0	0	0	2	2	8.0
50yr	1	1	1	0	0	0	0	0	0	0	2	2	8.0
039N-040N 015W-014W 100yr	2	1	1	0	0	0	0	0	0	0	3	3	13.1
50yr	2	1	1	0	0	0	0	0	0	0	3	3	13.1
039N-040N 014W-013W 100yr	2	1	1	0	0	0	0	0	0	0	3	3	14.1
50yr	2	1	1	0	0	0	0	0	0	0	3	3	14.1
039N-040N 013W-012W 100yr	1	1	1	0	0	0	0	0	0	0	2	2	8.9
50yr	1	1	1	0	0	0	0	0	0	0	2	2	8.9
039N-040N 012W-011W 100yr	1	1	1	0	0	0	0	0	0	0	2	2	9.7
50yr	1	1	1	0	0	0	0	0	0	0	2	2	9.7
039N-040N 011W-010W 100yr	1	1	1	0	0	0	0	0	0	0	2	2	9.2
50yr	1	1	1	0	0	0	0	0	0	0	2	2	9.2
039N-040N 010W-009W 100yr	1	1	1	0	0	0	0	0	0	0	2	2	8.6
50yr	1	1	1	0	0	0	0	0	0	0	2	2	8.6
039N-040N 009W-008W 100yr	1	1	1	0	0	0	0	0	0	0	2	2	19.5
50yr	1	1	1	0	0	0	0	0	0	0	2	2	19.5
039N-040N 008W-007W 100yr	2	0	0	0	0	0	0	0	0	0	2	2	19.5
50yr	2	0	0	0	0	0	0	0	0	0	2	2	19.5
039N-040N 007W-006W 100yr	2	0	0	0	0	0	0	0	0	0	2	2	13.7
50yr	2	0	0	0	0	0	0	0	0	0	2	2	13.7
039N-040N 006W-005W 100yr	2	0	0	0	0	0	0	0	0	0	2	2	12.4
50yr	2	0	0	0	0	0	0	0	0	0	2	2	12.4
039N-040N 005W-004W 100yr	2	0	0	0	0	0	0	0	0	0	2	2	9.8
50yr	2	0	0	0	0	0	0	0	0	0	2	2	9.8
039N-040N 004W-003W 100yr	1	0	0	0	0	0	0	0	0	0	1	1	2.0
50yr	1	0	0	0	0	0	0	0	0	0	1	1	2.0

Grid Cell	TD	TS	G	S	S1	S2	S3	S4	S5	H	<H	All	Spd

Grid Cell	TD	TS	G	S	S1	S2	S3	S4	S5	H	<H	All	Spd

040°N to 041°N

Grid Cell	TD	TS	G	S	S1	S2	S3	S4	S5	H	<H	All	Spd
040N-041N 099W-098W 100yr	1	0	0	0	0	0	0	0	0	0	1	1	13.8
50yr	1	0	0	0	0	0	0	0	0	0	1	1	13.8
040N-041N 098W-097W 100yr	1	0	0	0	0	0	0	0	0	0	1	1	13.8
50yr	1	0	0	0	0	0	0	0	0	0	1	1	13.8
040N-041N 096W-095W 100yr	1	0	0	0	0	0	0	0	0	0	1	1	28.1
50yr	0	0	0	0	0	0	0	0	0	0	0	0	0.0
040N-041N 095W-094W 100yr	2	0	0	0	0	0	0	0	0	0	2	2	16.3
50yr	0	0	0	0	0	0	0	0	0	0	0	0	0.0
040N-041N 091W-090W 100yr	2	0	0	0	0	0	0	0	0	0	2	2	31.8
50yr	2	0	0	0	0	0	0	0	0	0	2	2	31.8
040N-041N 090W-089W 100yr	3	0	0	0	0	0	0	0	0	0	3	3	31.3
50yr	2	0	0	0	0	0	0	0	0	0	2	2	33.1
040N-041N 089W-088W 100yr	5	0	0	0	0	0	0	0	0	0	5	5	29.5
50yr	3	0	0	0	0	0	0	0	0	0	3	3	30.7

Grid Cell	TD	TS	G	S	S1	S2	S3	S4	S5	H	<H	All	Spd
040N-041N 088W-087W 100yr	4	1	1	0	0	0	0	0	0	0	5	5	25.2
50yr	1	0	0	0	0	0	0	0	0	0	1	1	26.3
040N-041N 087W-086W 100yr	4	1	1	0	0	0	0	0	0	0	5	5	26.4
50yr	1	0	0	0	0	0	0	0	0	0	1	1	25.7
040N-041N 086W-085W 100yr	1	0	0	0	0	0	0	0	0	0	1	1	14.6
50yr	0	0	0	0	0	0	0	0	0	0	0	0	0.0
040N-041N 085W-084W 100yr	2	1	1	0	0	0	0	0	0	0	3	3	15.2
50yr	0	0	0	0	0	0	0	0	0	0	0	0	0.0
040N-041N 084W-083W 100yr	1	1	1	0	0	0	0	0	0	0	2	2	17.3
50yr	0	0	0	0	0	0	0	0	0	0	0	0	0.0
040N-041N 083W-082W 100yr	0	1	1	0	0	0	0	0	0	0	1	1	21.2
50yr	0	1	1	0	0	0	0	0	0	0	1	1	21.2
040N-041N 082W-081W 100yr	0	2	2	0	0	0	0	0	0	0	2	2	29.6
50yr	0	2	2	0	0	0	0	0	0	0	2	2	29.6
040N-041N 081W-080W 100yr	2	4	4	0	0	0	0	0	0	0	6	6	33.6
50yr	1	3	3	0	0	0	0	0	0	0	4	4	37.3
040N-041N 080W-079W 100yr	1	4	4	0	0	0	0	0	0	0	5	5	34.3
50yr	0	3	3	0	0	0	0	0	0	0	3	3	40.1
040N-041N 079W-078W 100yr	1	2	2	0	0	0	0	0	0	0	3	3	29.1
50yr	1	1	1	0	0	0	0	0	0	0	2	2	34.7
040N-041N 078W-077W 100yr	2	5	5	0	1	0	0	0	0	1	7	8	25.0
50yr	2	2	2	0	1	0	0	0	0	1	4	5	26.2
040N-041N 077W-076W 100yr	3	7	7	0	0	0	0	0	0	0	10	10	23.1
50yr	3	4	4	0	0	0	0	0	0	0	7	7	22.7
040N-041N 076W-075W 100yr	4	4	4	0	1	0	0	0	0	1	8	9	22.0
50yr	1	2	2	0	0	0	0	0	0	0	3	3	24.5
040N-041N 075W-074W 100yr	5	7	5	2	1	0	0	0	0	1	12	13	21.3
50yr	2	6	4	2	0	0	0	0	0	0	8	8	24.8
040N-041N 074W-073W 100yr	2	9	5	4	4	3	0	0	0	7	11	18	26.7
50yr	2	8	4	4	1	2	0	0	0	3	10	13	25.5
040N-041N 073W-072W 100yr	1	5	5	0	3	4	0	0	0	7	6	13	23.5
50yr	1	2	2	0	0	3	0	0	0	3	3	6	23.2
040N-041N 072W-071W 100yr	0	7	7	0	4	2	1	0	0	7	7	14	25.6
50yr	0	3	3	0	1	2	1	0	0	4	3	7	23.1
040N-041N 071W-070W 100yr	1	13	8	5	5	3	4	0	0	12	14	26	23.1
50yr	1	6	2	4	1	2	3	0	0	6	7	13	21.3
040N-041N 070W-069W 100yr	3	13	4	9	6	4	2	0	0	12	16	28	19.8
50yr	2	8	1	7	3	1	2	0	0	6	10	16	17.9
040N-041N 069W-068W 100yr	0	20	10	10	6	2	1	0	0	9	20	29	21.9
50yr	0	13	6	7	3	0	1	0	0	4	13	17	21.5
040N-041N 068W-067W 100yr	0	24	12	12	7	3	0	0	0	10	24	34	23.7
50yr	0	17	6	11	2	1	0	0	0	3	17	20	23.9
040N-041N 067W-066W 100yr	0	16	8	8	10	2	0	0	0	12	16	28	26.0
50yr	0	11	4	7	8	1	0	0	0	9	11	20	26.6
040N-041N 066W-065W 100yr	1	18	9	9	11	2	2	0	0	15	19	34	26.3
50yr	1	12	4	8	7	1	1	0	0	9	13	22	28.0
040N-041N 065W-064W 100yr	2	15	6	9	9	1	0	0	0	10	17	27	27.9
50yr	1	12	4	8	6	1	0	0	0	7	13	20	30.0

Grid Cell	TD	TS	G	S	S1	S2	S3	S4	S5	H	<H	All	Spd
040N-041N 064W-063W 100yr	1	12	6	6	11	2	0	2	0	15	13	28	31.0
50yr	1	8	4	4	8	1	0	2	0	11	9	20	32.5
040N-041N 063W-062W 100yr	0	12	6	6	13	3	0	2	0	18	12	30	30.9
50yr	0	8	4	4	11	1	0	2	0	14	8	22	32.9
040N-041N 062W-061W 100yr	1	8	3	5	9	2	0	1	0	12	9	21	29.5
50yr	1	6	3	3	6	0	0	1	0	7	7	14	27.5
040N-041N 061W-060W 100yr	1	10	5	5	8	4	0	1	0	13	11	24	28.2
50yr	1	6	3	3	5	1	0	1	0	7	7	14	27.5
040N-041N 060W-059W 100yr	3	10	4	6	14	2	1	0	0	17	13	30	27.7
50yr	3	5	2	3	9	1	1	0	0	11	8	19	24.8
040N-041N 059W-058W 100yr	1	10	5	5	15	3	1	0	0	19	11	30	25.6
50yr	1	5	3	2	11	1	1	0	0	13	6	19	24.9
040N-041N 058W-057W 100yr	2	14	8	6	14	1	1	0	0	16	16	32	26.5
50yr	2	9	5	4	10	0	1	0	0	11	11	22	24.7
040N-041N 057W-056W 100yr	0	13	7	6	9	1	1	0	0	11	13	24	25.6
50yr	0	7	4	3	6	1	1	0	0	8	7	15	24.4
040N-041N 056W-055W 100yr	1	13	7	6	5	3	1	0	0	9	14	23	23.9
50yr	1	8	4	4	3	1	1	0	0	5	9	14	23.1
040N-041N 055W-054W 100yr	1	13	5	8	12	5	1	1	0	19	14	33	26.6
50yr	1	10	5	5	10	3	1	0	0	14	11	25	26.3
040N-041N 054W-053W 100yr	0	10	5	5	11	5	0	1	0	17	10	27	28.4
50yr	0	8	5	3	9	3	0	0	0	12	8	20	28.2
040N-041N 053W-052W 100yr	1	11	4	7	8	3	0	1	0	12	12	24	28.1
50yr	1	9	4	5	7	1	0	0	0	8	10	18	29.6
040N-041N 052W-051W 100yr	0	13	5	8	7	0	0	0	0	7	13	20	29.3
50yr	0	10	5	5	6	0	0	0	0	6	10	16	30.7
040N-041N 051W-050W 100yr	0	12	4	8	6	2	0	0	0	8	12	20	25.1
50yr	0	10	4	6	5	2	0	0	0	7	10	17	25.9
040N-041N 050W-049W 100yr	1	13	3	10	5	2	0	0	0	7	14	21	26.6
50yr	1	12	3	9	5	2	0	0	0	7	13	20	26.9
040N-041N 049W-048W 100yr	0	11	2	9	3	3	0	0	0	6	11	17	23.1
50yr	0	9	2	7	3	1	0	0	0	4	9	13	22.5
040N-041N 048W-047W 100yr	0	9	3	6	6	6	0	0	0	12	9	21	24.4
50yr	0	6	2	4	4	2	0	0	0	6	6	12	24.7
040N-041N 047W-046W 100yr	0	8	3	5	6	6	0	0	0	12	8	20	25.9
50yr	0	5	2	3	4	2	0	0	0	6	5	11	19.8
040N-041N 046W-045W 100yr	0	4	2	2	4	4	0	0	0	8	4	12	31.8
50yr	0	2	2	0	2	1	0	0	0	3	2	5	27.0
040N-041N 045W-044W 100yr	0	5	3	2	2	4	0	0	0	6	5	11	28.5
50yr	0	2	2	0	2	3	0	0	0	5	2	7	25.0
040N-041N 044W-043W 100yr	0	7	6	1	3	4	0	0	0	7	7	14	22.8
50yr	0	4	4	0	3	4	0	0	0	7	4	11	21.2
040N-041N 043W-042W 100yr	0	7	6	1	6	2	0	0	0	8	7	15	26.0
50yr	0	4	4	0	5	2	0	0	0	7	4	11	25.5
040N-041N 042W-041W 100yr	0	2	1	1	6	1	0	0	0	7	2	9	25.4
50yr	0	1	1	0	5	1	0	0	0	6	1	7	26.1
040N-041N 041W-040W 100yr	0	3	1	2	6	1	0	0	0	7	3	10	25.9
50yr	0	2	1	1	4	1	0	0	0	5	2	7	28.9

Grid Cell	TD	TS	G	S	S1	S2	S3	S4	S5	H	<H	All	Spd
040N-041N 040W-039W 100yr	1	2	0	2	7	0	0	0	0	7	3	10	25.2
50yr	1	1	0	1	6	0	0	0	0	6	2	8	25.5
040N-041N 039W-038W 100yr	1	3	0	3	8	1	0	0	0	9	4	13	26.5
50yr	1	2	0	2	7	1	0	0	0	8	3	11	27.1
040N-041N 038W-037W 100yr	0	3	0	3	7	0	0	0	0	7	3	10	24.0
50yr	0	2	0	2	5	0	0	0	0	5	2	7	25.0
040N-041N 037W-036W 100yr	0	3	1	2	5	0	0	0	0	5	3	8	21.8
50yr	0	3	1	2	5	0	0	0	0	5	3	8	21.8
040N-041N 036W-035W 100yr	0	2	1	1	3	1	0	0	0	4	2	6	26.9
50yr	0	2	1	1	3	1	0	0	0	4	2	6	26.9
040N-041N 035W-034W 100yr	1	3	1	2	4	0	0	0	0	4	4	8	24.3
50yr	1	2	1	1	4	0	0	0	0	4	3	7	26.2
040N-041N 034W-033W 100yr	1	4	1	3	4	1	0	0	0	5	5	10	24.5
50yr	1	3	1	2	4	1	0	0	0	5	4	9	26.0
040N-041N 033W-032W 100yr	1	2	1	1	4	1	0	0	0	5	3	8	22.4
50yr	1	2	1	1	3	1	0	0	0	4	3	7	21.5
040N-041N 032W-031W 100yr	1	4	2	2	4	0	0	0	0	4	5	9	22.6
50yr	1	3	1	2	3	0	0	0	0	3	4	7	23.8
040N-041N 031W-030W 100yr	2	5	3	2	3	0	0	0	0	3	7	10	25.9
50yr	2	4	2	2	2	0	0	0	0	2	6	8	27.6
040N-041N 030W-029W 100yr	2	4	3	1	4	0	0	0	0	4	6	10	25.2
50yr	2	3	2	1	2	0	0	0	0	2	5	7	28.7
040N-041N 029W-028W 100yr	1	4	3	1	3	0	0	0	0	3	5	8	23.6
50yr	1	4	3	1	1	0	0	0	0	1	5	6	24.9
040N-041N 028W-027W 100yr	1	3	1	2	3	0	0	0	0	3	4	7	22.9
50yr	1	3	1	2	1	0	0	0	0	1	4	5	25.0
040N-041N 027W-026W 100yr	1	1	0	1	3	1	0	0	0	4	2	6	24.9
50yr	1	1	0	1	2	0	0	0	0	2	2	4	27.8
040N-041N 026W-025W 100yr	0	1	0	1	4	1	0	0	0	5	1	6	24.2
50yr	0	1	0	1	4	0	0	0	0	4	1	5	26.1
040N-041N 025W-024W 100yr	0	4	0	4	3	0	0	0	0	3	4	7	23.1
50yr	0	3	0	3	3	0	0	0	0	3	3	6	24.2
040N-041N 024W-023W 100yr	0	5	0	5	1	0	0	0	0	1	5	6	23.7
50yr	0	4	0	4	1	0	0	0	0	1	4	5	25.1
040N-041N 023W-022W 100yr	0	2	0	2	0	0	0	0	0	0	2	2	19.6
50yr	0	1	0	1	0	0	0	0	0	0	1	1	24.8
040N-041N 022W-021W 100yr	0	1	0	1	0	1	0	0	0	1	1	2	33.3
50yr	0	1	0	1	0	1	0	0	0	1	1	2	33.3
040N-041N 021W-020W 100yr	1	1	1	0	1	1	0	0	0	2	2	4	25.2
50yr	1	1	1	0	1	1	0	0	0	2	2	4	25.2
040N-041N 020W-019W 100yr	1	0	0	0	1	0	0	0	0	1	1	2	21.5
50yr	1	0	0	0	1	0	0	0	0	1	1	2	21.5
040N-041N 019W-018W 100yr	1	1	1	0	1	0	0	0	0	1	2	3	20.6
50yr	1	1	1	0	1	0	0	0	0	1	2	3	20.6
040N-041N 018W-017W 100yr	1	1	1	0	0	0	0	0	0	0	2	2	13.1
50yr	1	1	1	0	0	0	0	0	0	0	2	2	13.1
040N-041N 017W-016W 100yr	1	0	0	0	0	0	0	0	0	0	1	1	6.2
50yr	1	0	0	0	0	0	0	0	0	0	1	1	6.2

Grid Cell	TD	TS	G	S	S1	S2	S3	S4	S5	H	<H	All	Spd
040N-041N 016W-015W 100yr	1	0	0	0	0	0	0	0	0	0	1	1	6.5
50yr	1	0	0	0	0	0	0	0	0	0	1	1	6.5
040N-041N 015W-014W 100yr	1	0	0	0	0	0	0	0	0	0	1	1	20.4
50yr	1	0	0	0	0	0	0	0	0	0	1	1	20.4
040N-041N 014W-013W 100yr	1	0	0	0	0	0	0	0	0	0	1	1	5.5
50yr	1	0	0	0	0	0	0	0	0	0	1	1	5.5
040N-041N 013W-012W 100yr	1	0	0	0	0	0	0	0	0	0	1	1	5.0
50yr	1	0	0	0	0	0	0	0	0	0	1	1	5.0
040N-041N 012W-011W 100yr	1	0	0	0	0	0	0	0	0	0	1	1	3.8
50yr	1	0	0	0	0	0	0	0	0	0	1	1	3.8
040N-041N 011W-010W 100yr	1	0	0	0	0	0	0	0	0	0	1	1	2.7
50yr	1	0	0	0	0	0	0	0	0	0	1	1	2.7
040N-041N 010W-009W 100yr	1	0	0	0	0	0	0	0	0	0	1	1	1.5
50yr	1	0	0	0	0	0	0	0	0	0	1	1	1.5

041°N to 042°N

Grid Cell	TD	TS	G	S	S1	S2	S3	S4	S5	H	<H	All	Spd
041N-042N 098W-097W 100yr	1	0	0	0	0	0	0	0	0	0	1	1	14.2
50yr	1	0	0	0	0	0	0	0	0	0	1	1	14.2
041N-042N 097W-096W 100yr	1	0	0	0	0	0	0	0	0	0	1	1	14.2
50yr	1	0	0	0	0	0	0	0	0	0	1	1	14.2
041N-042N 096W-095W 100yr	1	0	0	0	0	0	0	0	0	0	1	1	28.1
50yr	0	0	0	0	0	0	0	0	0	0	0	0	0.0
041N-042N 095W-094W 100yr	1	0	0	0	0	0	0	0	0	0	1	1	28.1
50yr	0	0	0	0	0	0	0	0	0	0	0	0	0.0
041N-042N 090W-089W 100yr	1	0	0	0	0	0	0	0	0	0	1	1	40.8
50yr	1	0	0	0	0	0	0	0	0	0	1	1	40.8
041N-042N 089W-088W 100yr	4	0	0	0	0	0	0	0	0	0	4	4	33.6
50yr	3	0	0	0	0	0	0	0	0	0	3	3	35.6
041N-042N 088W-087W 100yr	2	0	0	0	0	0	0	0	0	0	2	2	44.7
50yr	2	0	0	0	0	0	0	0	0	0	2	2	44.7
041N-042N 087W-086W 100yr	4	1	1	0	0	0	0	0	0	0	5	5	26.4
50yr	1	0	0	0	0	0	0	0	0	0	1	1	25.7
041N-042N 086W-085W 100yr	3	1	1	0	0	0	0	0	0	0	4	4	29.4
50yr	1	0	0	0	0	0	0	0	0	0	1	1	25.0
041N-042N 085W-084W 100yr	2	0	0	0	0	0	0	0	0	0	2	2	19.0
50yr	1	0	0	0	0	0	0	0	0	0	1	1	25.0
041N-042N 084W-083W 100yr	2	1	1	0	0	0	0	0	0	0	3	3	20.3
50yr	1	0	0	0	0	0	0	0	0	0	1	1	26.0
041N-042N 083W-082W 100yr	2	1	1	0	0	0	0	0	0	0	3	3	20.6
50yr	1	0	0	0	0	0	0	0	0	0	1	1	27.0
041N-042N 082W-081W 100yr	2	2	2	0	0	0	0	0	0	0	4	4	20.5
50yr	1	1	1	0	0	0	0	0	0	0	2	2	23.6
041N-042N 081W-080W 100yr	2	2	2	0	0	0	0	0	0	0	4	4	23.6
50yr	2	2	2	0	0	0	0	0	0	0	4	4	23.6
041N-042N 080W-079W 100yr	2	1	1	0	0	0	0	0	0	0	3	3	34.4
50yr	1	1	1	0	0	0	0	0	0	0	2	2	39.3

Grid Cell	TD	TS	G	S	S1	S2	S3	S4	S5	H	<H	All	Spd
041N-042N 079W-078W 100yr	2	4	4	0	0	0	0	0	0	0	6	6	29.5
50yr	1	3	3	0	0	0	0	0	0	0	4	4	34.1
041N-042N 078W-077W 100yr	2	2	2	0	1	0	0	0	0	1	4	5	29.6
50yr	2	2	2	0	1	0	0	0	0	1	4	5	29.6
041N-042N 077W-076W 100yr	2	5	4	1	0	0	0	0	0	0	7	7	22.7
50yr	2	2	2	0	0	0	0	0	0	0	4	4	28.6
041N-042N 076W-075W 100yr	2	3	3	0	1	0	0	0	0	1	5	6	22.9
50yr	2	1	1	0	0	0	0	0	0	0	3	3	21.4
041N-042N 075W-074W 100yr	6	3	2	1	0	0	0	0	0	0	9	9	22.6
50yr	3	1	0	1	0	0	0	0	0	0	4	4	22.8
041N-042N 074W-073W 100yr	5	6	2	4	1	2	0	0	0	3	11	14	26.8
50yr	3	6	2	4	1	1	0	0	0	2	9	11	26.4
041N-042N 073W-072W 100yr	4	9	5	4	1	3	0	0	0	4	13	17	23.3
50yr	3	7	4	3	0	3	0	0	0	3	10	13	25.5
041N-042N 072W-071W 100yr	3	5	5	0	2	2	0	0	0	4	8	12	22.6
50yr	2	4	4	0	0	2	0	0	0	2	6	8	21.2
041N-042N 071W-070W 100yr	1	11	9	2	3	2	0	0	0	5	12	17	26.7
50yr	1	6	4	2	0	2	0	0	0	2	7	9	25.2
041N-042N 070W-069W 100yr	3	9	6	3	3	3	1	0	0	7	12	19	26.7
50yr	2	6	3	3	1	1	1	0	0	3	8	11	21.6
041N-042N 069W-068W 100yr	2	8	6	2	6	3	2	0	0	11	10	21	23.7
50yr	1	4	3	1	3	0	2	0	0	5	5	10	22.9
041N-042N 068W-067W 100yr	1	13	7	6	8	4	0	0	0	12	14	26	22.5
50yr	0	8	3	5	3	2	0	0	0	5	8	13	23.1
041N-042N 067W-066W 100yr	0	19	9	10	10	5	0	0	0	15	19	34	23.8
50yr	0	12	4	8	6	3	0	0	0	9	12	21	25.0
041N-042N 066W-065W 100yr	0	15	8	7	6	4	1	0	0	11	15	26	25.5
50yr	0	8	4	4	4	3	0	0	0	7	8	15	26.0
041N-042N 065W-064W 100yr	1	20	7	13	8	2	1	0	0	11	21	32	25.0
50yr	0	13	3	10	5	1	0	0	0	6	13	19	25.8
041N-042N 064W-063W 100yr	3	15	5	10	3	1	0	0	0	4	18	22	25.1
50yr	2	12	3	9	1	0	0	0	0	1	14	15	26.5
041N-042N 063W-062W 100yr	2	16	8	8	10	2	1	0	0	13	18	31	31.2
50yr	2	11	3	8	8	1	1	0	0	10	13	23	34.3
041N-042N 062W-061W 100yr	2	16	7	9	11	2	1	1	0	15	18	33	32.8
50yr	2	11	3	8	9	1	1	1	0	12	13	25	35.3
041N-042N 061W-060W 100yr	0	14	8	6	7	2	1	1	0	11	14	25	32.2
50yr	0	9	4	5	6	0	1	1	0	8	9	17	34.5
041N-042N 060W-059W 100yr	0	10	5	5	9	3	1	0	0	13	10	23	33.4
50yr	0	7	3	4	6	1	1	0	0	8	7	15	34.1
041N-042N 059W-058W 100yr	1	8	3	5	11	3	1	0	0	15	9	24	27.9
50yr	1	4	2	2	6	1	1	0	0	8	5	13	26.3
041N-042N 058W-057W 100yr	2	12	5	7	16	3	1	0	0	20	14	34	28.1
50yr	2	7	3	4	10	1	1	0	0	12	9	21	26.2
041N-042N 057W-056W 100yr	1	15	4	11	13	1	0	0	0	14	16	30	27.2
50yr	1	11	3	8	8	1	0	0	0	9	12	21	25.1
041N-042N 056W-055W 100yr	1	15	6	9	10	1	0	0	0	11	16	27	26.5
50yr	1	10	3	7	8	1	0	0	0	9	11	20	25.1

Grid Cell	TD	TS	G	S	S1	S2	S3	S4	S5	H	<H	All	Spd
041N-042N 055W-054W 100yr	2	11	5	6	12	1	1	0	0	14	13	27	25.8
50yr	2	5	2	3	9	1	1	0	0	11	7	18	23.5
041N-042N 054W-053W 100yr	1	7	2	5	12	3	0	0	0	15	8	23	28.3
50yr	1	5	2	3	9	2	0	0	0	11	6	17	27.5
041N-042N 053W-052W 100yr	1	8	3	5	11	5	0	1	0	17	9	26	28.2
50yr	1	6	3	3	8	2	0	0	0	10	7	17	28.5
041N-042N 052W-051W 100yr	0	12	5	7	9	4	1	0	0	14	12	26	25.8
50yr	0	10	5	5	9	2	0	0	0	11	10	21	26.1
041N-042N 051W-050W 100yr	0	13	4	9	6	2	0	0	0	8	13	21	30.7
50yr	0	10	4	6	6	2	0	0	0	8	10	18	31.0
041N-042N 050W-049W 100yr	1	16	6	10	4	2	0	0	0	6	17	23	31.1
50yr	1	13	5	8	4	2	0	0	0	6	14	20	31.3
041N-042N 049W-048W 100yr	1	16	8	8	4	2	0	0	0	6	17	23	29.1
50yr	1	14	7	7	4	2	0	0	0	6	15	21	29.3
041N-042N 048W-047W 100yr	1	13	7	6	5	3	0	0	0	8	14	22	29.7
50yr	1	11	6	5	4	2	0	0	0	6	12	18	31.1
041N-042N 047W-046W 100yr	0	12	4	8	4	3	0	0	0	7	12	19	25.0
50yr	0	9	3	6	2	1	0	0	0	3	9	12	21.8
041N-042N 046W-045W 100yr	0	8	2	6	4	5	0	0	0	9	8	17	27.0
50yr	0	6	2	4	2	2	0	0	0	4	6	10	21.0
041N-042N 045W-044W 100yr	0	6	2	4	1	4	0	0	0	5	6	11	28.7
50yr	0	4	2	2	0	1	0	0	0	1	4	5	25.4
041N-042N 044W-043W 100yr	0	7	4	3	1	4	0	0	0	5	7	12	27.7
50yr	0	5	4	1	0	3	0	0	0	3	5	8	22.5
041N-042N 043W-042W 100yr	0	8	7	1	2	4	0	0	0	6	8	14	25.6
50yr	0	5	5	0	2	3	0	0	0	5	5	10	22.1
041N-042N 042W-041W 100yr	0	8	5	3	2	1	0	0	0	3	8	11	26.4
50yr	0	5	3	2	2	1	0	0	0	3	5	8	25.4
041N-042N 041W-040W 100yr	0	5	3	2	3	2	0	0	0	5	5	10	24.4
50yr	0	5	3	2	2	2	0	0	0	4	5	9	26.0
041N-042N 040W-039W 100yr	0	4	2	2	3	1	0	0	0	4	4	8	28.3
50yr	0	3	2	1	2	1	0	0	0	3	3	6	31.4
041N-042N 039W-038W 100yr	1	3	1	2	4	2	0	0	0	6	4	10	26.1
50yr	1	2	1	1	4	2	0	0	0	6	3	9	25.9
041N-042N 038W-037W 100yr	1	2	0	2	7	2	0	0	0	9	3	12	24.2
50yr	1	2	0	2	4	2	0	0	0	6	3	9	24.8
041N-042N 037W-036W 100yr	0	1	0	1	8	1	0	0	0	9	1	10	24.7
50yr	0	1	0	1	6	1	0	0	0	7	1	8	24.6
041N-042N 036W-035W 100yr	0	0	0	0	8	1	0	0	0	9	0	9	25.4
50yr	0	0	0	0	6	1	0	0	0	7	0	7	25.3
041N-042N 035W-034W 100yr	0	1	0	1	6	1	0	0	0	7	1	8	22.1
50yr	0	1	0	1	4	1	0	0	0	5	1	6	20.9
041N-042N 034W-033W 100yr	0	5	1	4	4	1	0	0	0	5	5	10	22.7
50yr	0	2	0	2	3	1	0	0	0	4	2	6	25.3
041N-042N 033W-032W 100yr	0	5	1	4	2	1	0	0	0	3	5	8	22.7
50yr	0	2	0	2	1	1	0	0	0	2	2	4	26.9
041N-042N 032W-031W 100yr	0	4	1	3	2	0	0	0	0	2	4	6	27.2
50yr	0	2	0	2	2	0	0	0	0	2	2	4	32.5

Grid Cell	TD	TS	G	S	S1	S2	S3	S4	S5	H	<H	All	Spd
041N-042N 031W-030W 100yr	0	4	1	3	1	0	0	0	0	1	4	5	27.4
50yr	0	3	1	2	1	0	0	0	0	1	3	4	28.0
041N-042N 030W-029W 100yr	1	5	1	4	2	0	0	0	0	2	6	8	29.7
50yr	1	4	1	3	2	0	0	0	0	2	5	7	30.3
041N-042N 029W-028W 100yr	0	6	3	3	1	0	0	0	0	1	6	7	26.4
50yr	0	5	3	2	1	0	0	0	0	1	5	6	26.5
041N-042N 028W-027W 100yr	0	4	3	1	1	0	0	0	0	1	4	5	30.1
50yr	0	4	3	1	1	0	0	0	0	1	4	5	30.1
041N-042N 027W-026W 100yr	1	4	3	1	0	0	0	0	0	0	5	5	22.8
50yr	1	4	3	1	0	0	0	0	0	0	5	5	22.8
041N-042N 026W-025W 100yr	1	3	2	1	0	0	0	0	0	0	4	4	20.9
50yr	1	3	2	1	0	0	0	0	0	0	4	4	20.9
041N-042N 025W-024W 100yr	1	2	1	1	1	0	0	0	0	1	3	4	22.3
50yr	1	2	1	1	1	0	0	0	0	1	3	4	22.3
041N-042N 024W-023W 100yr	0	4	1	3	2	0	0	0	0	2	4	6	25.5
50yr	0	4	1	3	2	0	0	0	0	2	4	6	25.5
041N-042N 023W-022W 100yr	0	4	2	2	3	0	0	0	0	3	4	7	25.6
50yr	0	3	1	2	3	0	0	0	0	3	3	6	27.8
041N-042N 022W-021W 100yr	0	4	3	1	2	0	0	0	0	2	4	6	25.1
50yr	0	2	1	1	2	0	0	0	0	2	2	4	27.2
041N-042N 021W-020W 100yr	1	4	3	1	1	1	0	0	0	2	5	7	24.7
50yr	1	3	2	1	1	1	0	0	0	2	4	6	24.0
041N-042N 020W-019W 100yr	1	3	2	1	0	1	0	0	0	1	4	5	27.4
50yr	1	2	1	1	0	1	0	0	0	1	3	4	27.2
041N-042N 019W-018W 100yr	3	3	3	0	0	0	0	0	0	0	6	6	20.5
50yr	3	2	2	0	0	0	0	0	0	0	5	5	18.9
041N-042N 018W-017W 100yr	3	3	3	0	0	0	0	0	0	0	6	6	20.7
50yr	3	2	2	0	0	0	0	0	0	0	5	5	19.2
041N-042N 017W-016W 100yr	1	1	1	0	0	0	0	0	0	0	2	2	24.0
50yr	1	1	1	0	0	0	0	0	0	0	2	2	24.0
041N-042N 016W-015W 100yr	1	1	1	0	0	0	0	0	0	0	2	2	24.0
50yr	1	1	1	0	0	0	0	0	0	0	2	2	24.0
041N-042N 015W-014W 100yr	2	1	1	0	0	0	0	0	0	0	3	3	17.2
50yr	2	1	1	0	0	0	0	0	0	0	3	3	17.2
041N-042N 014W-013W 100yr	1	0	0	0	0	0	0	0	0	0	1	1	20.2
50yr	1	0	0	0	0	0	0	0	0	0	1	1	20.2
041N-042N 013W-012W 100yr	1	0	0	0	0	0	0	0	0	0	1	1	20.2
50yr	1	0	0	0	0	0	0	0	0	0	1	1	20.2
041N-042N 012W-011W 100yr	1	0	0	0	0	0	0	0	0	0	1	1	20.2
50yr	1	0	0	0	0	0	0	0	0	0	1	1	20.2
041N-042N 011W-010W 100yr	1	0	0	0	0	0	0	0	0	0	1	1	20.2
50yr	1	0	0	0	0	0	0	0	0	0	1	1	20.2

042°N to 043°N

042N-043N 089W-088W 100yr	1	0	0	0	0	0	0	0	0	0	1	1	27.6
50yr	0	0	0	0	0	0	0	0	0	0	0	0	0.0

Grid Cell	TD	TS	G	S	S1	S2	S3	S4	S5	H	<H	All	Spd
042N-043N 088W-087W 100yr	2	0	0	0	0	0	0	0	0	0	2	2	44.6
50yr	2	0	0	0	0	0	0	0	0	0	2	2	44.6
042N-043N 087W-086W 100yr	2	0	0	0	0	0	0	0	0	0	2	2	44.5
50yr	2	0	0	0	0	0	0	0	0	0	2	2	44.5
042N-043N 086W-085W 100yr	2	1	1	0	0	0	0	0	0	0	3	3	28.3
50yr	0	0	0	0	0	0	0	0	0	0	0	0	0.0
042N-043N 085W-084W 100yr	4	0	0	0	0	0	0	0	0	0	4	4	24.1
50yr	0	0	0	0	0	0	0	0	0	0	0	0	0.0
042N-043N 084W-083W 100yr	1	0	0	0	0	0	0	0	0	0	1	1	22.4
50yr	0	0	0	0	0	0	0	0	0	0	0	0	0.0
042N-043N 083W-082W 100yr	1	0	0	0	0	0	0	0	0	0	1	1	22.4
50yr	0	0	0	0	0	0	0	0	0	0	0	0	0.0
042N-043N 082W-081W 100yr	2	1	1	0	0	0	0	0	0	0	3	3	19.0
50yr	0	0	0	0	0	0	0	0	0	0	0	0	0.0
042N-043N 081W-080W 100yr	4	3	3	0	0	0	0	0	0	0	7	7	21.3
50yr	3	2	2	0	0	0	0	0	0	0	5	5	23.2
042N-043N 080W-079W 100yr	3	2	2	0	0	0	0	0	0	0	5	5	26.6
50yr	2	2	2	0	0	0	0	0	0	0	4	4	29.3
042N-043N 079W-078W 100yr	1	5	5	0	0	0	0	0	0	0	6	6	30.5
50yr	0	4	4	0	0	0	0	0	0	0	4	4	35.7
042N-043N 078W-077W 100yr	2	2	2	0	1	0	0	0	0	1	4	5	29.3
50yr	1	1	1	0	1	0	0	0	0	1	2	3	36.1
042N-043N 077W-076W 100yr	0	4	4	0	0	0	0	0	0	0	4	4	26.5
50yr	0	1	1	0	0	0	0	0	0	0	1	1	63.5
042N-043N 076W-075W 100yr	1	3	3	0	0	0	0	0	0	0	4	4	30.4
50yr	1	2	2	0	0	0	0	0	0	0	3	3	36.4
042N-043N 075W-074W 100yr	3	2	2	0	0	0	0	0	0	0	5	5	23.5
50yr	1	1	1	0	0	0	0	0	0	0	2	2	23.1
042N-043N 074W-073W 100yr	4	2	2	0	0	1	0	0	0	1	6	7	29.1
50yr	2	1	1	0	0	0	0	0	0	0	3	3	23.7
042N-043N 073W-072W 100yr	5	7	4	3	1	1	0	0	0	2	12	14	25.7
50yr	4	6	3	3	1	1	0	0	0	2	10	12	26.6
042N-043N 072W-071W 100yr	6	6	4	2	2	2	0	0	0	4	12	16	25.1
50yr	4	4	2	2	1	2	0	0	0	3	8	11	27.6
042N-043N 071W-070W 100yr	3	6	4	2	4	1	0	0	0	5	9	14	25.8
50yr	2	4	2	2	1	1	0	0	0	2	6	8	27.1
042N-043N 070W-069W 100yr	2	8	5	3	3	0	0	0	0	3	10	13	30.7
50yr	2	4	1	3	1	0	0	0	0	1	6	7	27.3
042N-043N 069W-068W 100yr	3	9	5	4	4	2	1	0	0	7	12	19	29.1
50yr	3	6	2	4	1	0	1	0	0	2	9	11	25.8
042N-043N 068W-067W 100yr	2	4	4	0	6	2	0	0	0	8	6	14	28.2
50yr	2	2	2	0	2	0	0	0	0	2	4	6	23.5
042N-043N 067W-066W 100yr	3	7	2	5	11	2	0	0	0	13	10	23	23.1
50yr	2	4	0	4	5	1	0	0	0	6	6	12	24.8
042N-043N 066W-065W 100yr	3	14	5	9	8	3	0	0	0	11	17	28	24.9
50yr	2	8	1	7	4	2	0	0	0	6	10	16	27.4
042N-043N 065W-064W 100yr	2	17	6	11	9	2	0	0	0	11	19	30	26.3
50yr	2	10	2	8	6	1	0	0	0	7	12	19	28.6

Grid Cell	TD	TS	G	S	S1	S2	S3	S4	S5	H	<H	All	Spd
042N-043N 064W-063W 100yr	2	18	7	11	9	2	0	0	0	11	20	31	25.1
50yr	1	10	3	7	5	1	0	0	0	6	11	17	27.9
042N-043N 063W-062W 100yr	2	15	4	11	6	2	0	0	0	8	17	25	24.1
50yr	1	10	2	8	3	1	0	0	0	4	11	15	28.5
042N-043N 062W-061W 100yr	3	14	6	8	10	1	0	0	0	11	17	28	28.9
50yr	3	10	3	7	8	1	0	0	0	9	13	22	33.5
042N-043N 061W-060W 100yr	3	16	7	9	7	2	1	1	0	11	19	30	31.6
50yr	3	9	2	7	4	1	1	1	0	7	12	19	36.2
042N-043N 060W-059W 100yr	3	17	7	10	5	2	1	1	0	9	20	29	35.9
50yr	3	11	3	8	5	0	1	1	0	7	14	21	40.4
042N-043N 059W-058W 100yr	1	13	7	6	6	2	1	1	0	10	14	24	35.7
50yr	1	8	3	5	5	1	1	1	0	8	9	17	38.7
042N-043N 058W-057W 100yr	0	15	7	8	8	4	1	0	0	13	15	28	32.2
50yr	0	9	4	5	5	1	1	0	0	7	9	16	32.1
042N-043N 057W-056W 100yr	0	15	6	9	13	1	1	0	0	15	15	30	32.5
50yr	0	9	4	5	7	0	1	0	0	8	9	17	33.8
042N-043N 056W-055W 100yr	0	19	5	14	8	0	0	0	0	8	19	27	29.2
50yr	0	13	4	9	5	0	0	0	0	5	13	18	28.9
042N-043N 055W-054W 100yr	1	19	9	10	6	1	0	0	0	7	20	27	29.0
50yr	1	12	5	7	5	1	0	0	0	6	13	19	28.6
042N-043N 054W-053W 100yr	1	17	7	10	6	2	0	0	0	8	18	26	27.6
50yr	1	10	3	7	5	2	0	0	0	7	11	18	26.3
042N-043N 053W-052W 100yr	2	8	4	4	10	3	0	0	0	13	10	23	29.9
50yr	2	5	2	3	6	2	0	0	0	8	7	15	28.7
042N-043N 052W-051W 100yr	1	8	5	3	9	4	1	0	0	14	9	23	28.4
50yr	1	6	3	3	5	1	0	0	0	6	7	13	28.7
042N-043N 051W-050W 100yr	0	5	3	2	9	3	1	0	0	13	5	18	29.6
50yr	0	5	3	2	5	2	0	0	0	7	5	12	31.2
042N-043N 050W-049W 100yr	0	6	2	4	7	2	0	0	0	9	6	15	34.7
50yr	0	6	2	4	6	1	0	0	0	7	6	13	36.6
042N-043N 049W-048W 100yr	0	8	2	6	6	1	0	0	0	7	8	15	34.3
50yr	0	8	2	6	5	1	0	0	0	6	8	14	34.7
042N-043N 048W-047W 100yr	1	17	5	12	9	3	0	0	0	12	18	30	33.9
50yr	1	15	4	11	7	3	0	0	0	10	16	26	34.4
042N-043N 047W-046W 100yr	1	14	4	10	10	2	0	0	0	12	15	27	33.4
50yr	1	12	3	9	8	2	0	0	0	10	13	23	33.8
042N-043N 046W-045W 100yr	1	13	3	10	9	0	1	0	0	10	14	24	31.5
50yr	1	11	3	8	7	0	1	0	0	8	12	20	30.8
042N-043N 045W-044W 100yr	1	7	1	6	7	1	1	0	0	9	8	17	26.4
50yr	1	5	1	4	4	0	1	0	0	5	6	11	24.6
042N-043N 044W-043W 100yr	1	8	1	7	5	2	1	0	0	8	9	17	28.2
50yr	1	6	1	5	2	1	1	0	0	4	7	11	26.6
042N-043N 043W-042W 100yr	1	8	3	5	6	3	0	0	0	9	9	18	24.9
50yr	1	6	3	3	2	3	0	0	0	5	7	12	23.3
042N-043N 042W-041W 100yr	1	10	6	4	5	3	0	0	0	8	11	19	24.8
50yr	1	9	6	3	2	3	0	0	0	5	10	15	23.6
042N-043N 041W-040W 100yr	1	9	5	4	5	1	0	0	0	6	10	16	24.7
50yr	1	8	5	3	4	1	0	0	0	5	9	14	24.9

Grid Cell	TD	TS	G	S	S1	S2	S3	S4	S5	H	<H	All	Spd
042N-043N 040W-039W 100yr	0	10	5	5	6	1	0	0	0	7	10	17	26.1
50yr	0	9	5	4	4	1	0	0	0	5	9	14	27.7
042N-043N 039W-038W 100yr	0	11	5	6	5	1	0	0	0	6	11	17	26.0
50yr	0	9	5	4	4	1	0	0	0	5	9	14	26.4
042N-043N 038W-037W 100yr	1	10	4	6	5	1	0	0	0	6	11	17	21.7
50yr	1	8	4	4	3	1	0	0	0	4	9	13	21.7
042N-043N 037W-036W 100yr	1	7	3	4	4	0	0	0	0	4	8	12	23.9
50yr	1	6	2	4	4	0	0	0	0	4	7	11	24.8
042N-043N 036W-035W 100yr	1	5	2	3	5	0	0	0	0	5	6	11	27.2
50yr	1	4	1	3	5	0	0	0	0	5	5	10	28.8
042N-043N 035W-034W 100yr	0	4	3	1	6	0	0	0	0	6	4	10	25.0
50yr	0	3	2	1	6	0	0	0	0	6	3	9	26.6
042N-043N 034W-033W 100yr	0	3	2	1	6	0	0	0	0	6	3	9	27.7
50yr	0	2	1	1	6	0	0	0	0	6	2	8	29.8
042N-043N 033W-032W 100yr	0	4	1	3	2	0	0	0	0	2	4	6	21.4
50yr	0	3	1	2	2	0	0	0	0	2	3	5	23.1
042N-043N 032W-031W 100yr	0	2	1	1	2	0	0	0	0	2	2	4	27.5
50yr	0	2	1	1	2	0	0	0	0	2	2	4	27.5
042N-043N 031W-030W 100yr	1	2	1	1	1	0	0	0	0	1	3	4	27.5
50yr	1	2	1	1	1	0	0	0	0	1	3	4	27.5
042N-043N 030W-029W 100yr	1	4	1	3	2	0	0	0	0	2	5	7	26.9
50yr	1	4	1	3	2	0	0	0	0	2	5	7	26.9
042N-043N 029W-028W 100yr	1	7	2	5	1	0	0	0	0	1	8	9	23.0
50yr	1	6	2	4	1	0	0	0	0	1	7	8	22.6
042N-043N 028W-027W 100yr	1	6	4	2	2	0	0	0	0	2	7	9	24.1
50yr	1	5	3	2	2	0	0	0	0	2	6	8	23.7
042N-043N 027W-026W 100yr	1	4	4	0	2	0	0	0	0	2	5	7	27.0
50yr	1	3	3	0	2	0	0	0	0	2	4	6	27.1
042N-043N 026W-025W 100yr	0	5	4	1	2	0	0	0	0	2	5	7	28.7
50yr	0	4	3	1	2	0	0	0	0	2	4	6	29.0
042N-043N 025W-024W 100yr	1	4	3	1	1	0	0	0	0	1	5	6	24.1
50yr	1	3	2	1	1	0	0	0	0	1	4	5	23.3
042N-043N 024W-023W 100yr	0	5	5	0	1	0	0	0	0	1	5	6	24.0
50yr	0	4	4	0	1	0	0	0	0	1	4	5	22.9
042N-043N 023W-022W 100yr	0	6	4	2	2	0	0	0	0	2	6	8	25.6
50yr	0	5	3	2	2	0	0	0	0	2	5	7	25.1
042N-043N 022W-021W 100yr	0	6	6	0	2	0	0	0	0	2	6	8	24.9
50yr	0	4	4	0	2	0	0	0	0	2	4	6	26.2
042N-043N 021W-020W 100yr	0	6	6	0	1	0	0	0	0	1	6	7	25.3
50yr	0	4	4	0	1	0	0	0	0	1	4	5	26.8
042N-043N 020W-019W 100yr	1	2	2	0	0	1	0	0	0	1	3	4	25.4
50yr	1	1	1	0	0	1	0	0	0	1	2	3	28.8
042N-043N 019W-018W 100yr	1	0	0	0	0	1	0	0	0	1	1	2	22.2
50yr	1	0	0	0	0	1	0	0	0	1	1	2	22.2
042N-043N 018W-017W 100yr	2	0	0	0	0	1	0	0	0	1	2	3	21.1
50yr	2	0	0	0	0	1	0	0	0	1	2	3	21.1
042N-043N 017w-016W 100yr	1	0	0	0	0	0	0	0	0	0	1	1	20.1
50yr	1	0	0	0	0	0	0	0	0	0	1	1	20.1

Grid Cell		TD	TS	G	S	S1	S2	S3	S4	S5	H	<H	All	Spd
042N-043N 016W-015W	100yr	1	2	2	0	0	0	0	0	0	0	3	3	14.4
	50yr	1	2	2	0	0	0	0	0	0	0	3	3	14.4
042N-043N 015W-014W	100yr	0	2	2	0	0	0	0	0	0	0	2	2	13.8
	50yr	0	2	2	0	0	0	0	0	0	0	2	2	13.8
042N-043N 011W-010W	100yr	1	0	0	0	0	0	0	0	0	0	1	1	20.2
	50yr	1	0	0	0	0	0	0	0	0	0	1	1	20.2
042N-043N 010W-009W	100yr	0	1	1	0	0	0	0	0	0	0	1	1	18.5
	50yr	0	1	1	0	0	0	0	0	0	0	1	1	18.5
042N-043N 009W-008W	100yr	0	1	1	0	0	0	0	0	0	0	1	1	18.5
	50yr	0	1	1	0	0	0	0	0	0	0	1	1	18.5
042N-043N 008W-007W	100yr	1	0	0	0	0	0	0	0	0	0	1	1	14.6
	50yr	1	0	0	0	0	0	0	0	0	0	1	1	14.6
042N-043N 007W-006W	100yr	1	0	0	0	0	0	0	0	0	0	1	1	14.6
	50yr	1	0	0	0	0	0	0	0	0	0	1	1	14.6

043°N to 044°N

043N-044N 087W-086W	100yr	2	0	0	0	0	0	0	0	0	0	2	2	44.5
	50yr	2	0	0	0	0	0	0	0	0	0	2	2	44.5
043N-044N 086W-085W	100yr	1	0	0	0	0	0	0	0	0	0	1	1	48.2
	50yr	1	0	0	0	0	0	0	0	0	0	1	1	48.2
043N-044N 085W-084W	100yr	2	0	0	0	0	0	0	0	0	0	2	2	29.3
	50yr	0	0	0	0	0	0	0	0	0	0	0	0	0.0
043N-044N 084W-083W	100yr	2	0	0	0	0	0	0	0	0	0	2	2	29.3
	50yr	0	0	0	0	0	0	0	0	0	0	0	0	0.0
043N-044N 083W-082W	100yr	1	0	0	0	0	0	0	0	0	0	1	1	22.4
	50yr	0	0	0	0	0	0	0	0	0	0	0	0	0.0
043N-044N 082W-081W	100yr	2	0	0	0	0	0	0	0	0	0	2	2	17.2
	50yr	1	0	0	0	0	0	0	0	0	0	1	1	11.9
043N-044N 081W-080W	100yr	3	0	0	0	0	0	0	0	0	0	3	3	12.1
	50yr	2	0	0	0	0	0	0	0	0	0	2	2	9.6
043N-044N 080W-079W	100yr	3	2	2	0	0	0	0	0	0	0	5	5	22.0
	50yr	1	1	1	0	0	0	0	0	0	0	2	2	32.3
043N-044N 079W-078W	100yr	3	3	3	0	1	0	0	0	0	1	6	7	24.8
	50yr	1	2	2	0	1	0	0	0	0	1	3	4	32.0
043N-044N 078W-077W	100yr	2	4	3	1	1	0	0	0	0	1	6	7	30.7
	50yr	1	3	2	1	1	0	0	0	0	1	4	5	35.4
043N-044N 077W-076W	100yr	2	1	1	0	0	0	0	0	0	0	3	3	14.7
	50yr	1	0	0	0	0	0	0	0	0	0	1	1	7.9
043N-044N 076W-075W	100yr	2	1	1	0	0	0	0	0	0	0	3	3	33.0
	50yr	2	0	0	0	0	0	0	0	0	0	2	2	44.0
043N-044N 075W-074W	100yr	1	2	2	0	0	0	0	0	0	0	3	3	38.2
	50yr	1	1	1	0	0	0	0	0	0	0	2	2	52.5
043N-044N 074W-073W	100yr	2	2	2	0	0	1	0	0	0	1	4	5	39.6
	50yr	1	1	1	0	0	0	0	0	0	0	2	2	53.8
043N-044N 073W-072W	100yr	1	3	3	0	0	0	0	0	0	0	4	4	30.0
	50yr	0	2	2	0	0	0	0	0	0	0	2	2	30.6

Grid Cell	TD	TS	G	S	S1	S2	S3	S4	S5	H	<H	All	Spd
043N-044N 072W-071W 100yr	2	6	6	0	1	2	0	0	0	3	8	11	29.3
50yr	1	3	3	0	1	2	0	0	0	3	4	7	31.3
043N-044N 071W-070W 100yr	3	5	3	2	2	1	0	0	0	3	8	11	28.0
50yr	2	4	2	2	1	1	0	0	0	2	6	8	28.0
043N-044N 070W-069W 100yr	3	3	2	1	3	1	0	0	0	4	6	10	26.7
50yr	2	3	2	1	1	1	0	0	0	2	5	7	26.3
043N-044N 069W-068W 100yr	3	6	2	4	3	0	1	0	0	4	9	13	31.4
50yr	3	4	0	4	1	0	1	0	0	2	7	9	30.0
043N-044N 068W-067W 100yr	2	7	5	2	4	2	1	0	0	7	9	16	31.1
50yr	2	4	2	2	2	0	1	0	0	3	6	9	26.0
043N-044N 067W-066W 100yr	0	6	5	1	3	3	0	0	0	6	6	12	30.0
50yr	0	3	3	0	2	1	0	0	0	3	3	6	24.6
043N-044N 066W-065W 100yr	1	5	2	3	6	2	0	0	0	8	6	14	25.1
50yr	1	1	0	1	2	1	0	0	0	3	2	5	23.7
043N-044N 065W-064W 100yr	1	9	3	6	5	2	0	0	0	7	10	17	25.9
50yr	1	6	1	5	2	0	0	0	0	2	7	9	28.6
043N-044N 064W-063W 100yr	1	10	4	6	9	2	0	0	0	11	11	22	26.2
50yr	1	7	2	5	5	0	0	0	0	5	8	13	28.3
043N-044N 063W-062W 100yr	2	15	4	11	9	1	0	0	0	10	17	27	26.2
50yr	1	10	2	8	5	0	0	0	0	5	11	16	28.0
043N-044N 062W-061W 100yr	1	16	5	11	8	0	0	0	0	8	17	25	28.8
50yr	0	12	2	10	7	0	0	0	0	7	12	19	30.3
043N-044N 061W-060W 100yr	0	15	7	8	11	1	0	0	0	12	15	27	28.8
50yr	0	11	4	7	7	1	0	0	0	8	11	19	31.5
043N-044N 060W-059W 100yr	2	12	5	7	5	2	0	0	0	7	14	21	27.8
50yr	2	9	3	6	2	0	0	0	0	2	11	13	31.9
043N-044N 059W-058W 100yr	3	13	7	6	5	2	1	1	0	9	16	25	31.7
50yr	3	10	5	5	3	1	1	1	0	6	13	19	35.1
043N-044N 058W-057W 100yr	3	14	7	7	5	2	1	1	0	9	17	26	32.0
50yr	3	11	4	7	4	0	1	1	0	6	14	20	33.6
043N-044N 057W-056W 100yr	1	11	5	6	8	1	2	1	0	12	12	24	34.9
50yr	1	8	2	6	5	0	2	1	0	8	9	17	36.3
043N-044N 056W-055W 100yr	1	14	5	9	8	1	1	0	0	10	15	25	31.5
50yr	1	10	2	8	5	0	1	0	0	6	11	17	32.4
043N-044N 055W-054W 100yr	1	17	7	10	9	0	0	0	0	9	18	27	31.6
50yr	1	13	4	9	5	0	0	0	0	5	14	19	32.5
043N-044N 054W-053W 100yr	1	15	6	9	7	0	0	0	0	7	16	23	30.4
50yr	1	10	3	7	5	0	0	0	0	5	11	16	30.0
043N-044N 053W-052W 100yr	2	15	7	8	4	1	0	0	0	5	17	22	29.1
50yr	2	9	4	5	2	1	0	0	0	3	11	14	27.3
043N-044N 052W-051W 100yr	3	13	6	7	8	2	0	0	0	10	16	26	30.8
50yr	3	7	3	4	5	1	0	0	0	6	10	16	28.9
043N-044N 051W-050W 100yr	2	13	7	6	10	3	0	0	0	13	15	28	30.7
50yr	2	8	5	3	5	1	0	0	0	6	10	16	29.4
043N-044N 050W-049W 100yr	2	9	6	3	10	2	0	0	0	12	11	23	29.0
50yr	2	7	5	2	5	1	0	0	0	6	9	15	29.3
043N-044N 049W-048W 100yr	1	9	5	4	5	2	0	0	0	7	10	17	29.4
50yr	1	6	4	2	3	1	0	0	0	4	7	11	30.1

Grid Cell	TD	TS	G	S	S1	S2	S3	S4	S5	H	<H	All	Spd
043N-044N 048W-047W 100yr	1	13	6	7	3	1	0	0	0	4	14	18	32.2
50yr	1	10	5	5	2	0	0	0	0	2	11	13	32.2
043N-044N 047W-046W 100yr	1	10	4	6	5	2	0	0	0	7	11	18	33.4
50yr	1	9	4	5	4	2	0	0	0	6	10	16	34.4
043N-044N 046W-045W 100yr	1	12	6	6	6	2	0	0	0	8	13	21	35.9
50yr	1	11	6	5	6	2	0	0	0	8	12	20	36.2
043N-044N 045W-044W 100yr	1	13	7	6	7	1	0	0	0	8	14	22	34.6
50yr	1	11	7	4	6	1	0	0	0	7	12	19	34.7
043N-044N 044W-043W 100yr	0	10	5	5	3	0	1	0	0	4	10	14	38.8
50yr	0	8	5	3	3	0	1	0	0	4	8	12	37.7
043N-044N 043W-042W 100yr	0	10	5	5	3	0	1	0	0	4	10	14	31.7
50yr	0	7	5	2	1	0	1	0	0	2	7	9	31.2
043N-044N 042W-041W 100yr	1	11	5	6	6	0	0	0	0	6	12	18	26.8
50yr	1	9	5	4	3	0	0	0	0	3	10	13	25.1
043N-044N 041W-040W 100yr	1	10	5	5	6	0	0	0	0	6	11	17	27.1
50yr	1	8	5	3	4	0	0	0	0	4	9	13	25.5
043N-044N 040W-039W 100yr	1	10	5	5	6	0	0	0	0	6	11	17	26.6
50yr	1	9	5	4	5	0	0	0	0	5	10	15	27.1
043N-044N 039W-038W 100yr	0	10	6	4	5	1	0	0	0	6	10	16	28.0
50yr	0	9	6	3	4	1	0	0	0	5	9	14	28.8
043N-044N 038W-037W 100yr	0	10	5	5	4	1	0	0	0	5	10	15	25.4
50yr	0	8	5	3	3	1	0	0	0	4	8	12	25.4
043N-044N 037W-036W 100yr	1	9	5	4	3	1	0	0	0	4	10	14	27.0
50yr	1	8	5	3	3	1	0	0	0	4	9	13	27.1
043N-044N 036W-035W 100yr	1	4	0	4	3	0	0	0	0	3	5	8	29.0
50yr	1	3	0	3	3	0	0	0	0	3	4	7	29.7
043N-044N 035W-034W 100yr	0	3	0	3	6	0	0	0	0	6	3	9	30.4
50yr	0	3	0	3	6	0	0	0	0	6	3	9	30.4
043N-044N 034W-033W 100yr	0	1	0	1	4	0	0	0	0	4	1	5	38.2
50yr	0	1	0	1	4	0	0	0	0	4	1	5	38.2
043N-044N 033W-032W 100yr	0	3	0	3	2	0	0	0	0	2	3	5	27.0
50yr	0	2	0	2	2	0	0	0	0	2	2	4	30.1
043N-044N 032W-031W 100yr	0	3	0	3	0	0	0	0	0	0	3	3	20.5
50yr	0	2	0	2	0	0	0	0	0	0	2	2	22.5
043N-044N 031W-030W 100yr	0	2	0	2	0	0	0	0	0	0	2	2	20.8
50yr	0	2	0	2	0	0	0	0	0	0	2	2	20.8
043N-044N 030W-029W 100yr	0	2	0	2	1	0	0	0	0	1	2	3	26.8
50yr	0	2	0	2	1	0	0	0	0	1	2	3	26.8
043N-044N 029W-028W 100yr	0	2	0	2	1	0	0	0	0	1	2	3	26.3
50yr	0	2	0	2	1	0	0	0	0	1	2	3	26.3
043N-044N 028W-027W 100yr	0	3	0	3	0	0	0	0	0	0	3	3	26.8
50yr	0	3	0	3	0	0	0	0	0	0	3	3	26.8
043N-044N 027W-026W 100yr	0	3	2	1	0	0	0	0	0	0	3	3	29.1
50yr	0	3	2	1	0	0	0	0	0	0	3	3	29.1
043N-044N 026W-025W 100yr	0	3	2	1	1	0	0	0	0	1	3	4	31.0
50yr	0	3	2	1	1	0	0	0	0	1	3	4	31.0
043N-044N 025W-024W 100yr	0	3	2	1	1	0	0	0	0	1	3	4	33.2
50yr	0	3	2	1	1	0	0	0	0	1	3	4	33.2

Grid Cell	TD	TS	G	S	S1	S2	S3	S4	S5	H	<H	All	Spd
043N-044N 024W-023W 100yr	0	2	2	0	1	0	0	0	0	1	2	3	32.7
50yr	0	2	2	0	1	0	0	0	0	1	2	3	32.7
043N-044N 023W-022W 100yr	0	1	0	1	0	0	0	0	0	0	1	1	32.0
50yr	0	1	0	1	0	0	0	0	0	0	1	1	32.0
043N-044N 022W-021W 100yr	0	0	0	0	1	0	0	0	0	1	0	1	22.4
50yr	0	0	0	0	1	0	0	0	0	1	0	1	22.4
043N-044N 021W-020W 100yr	0	2	2	0	2	0	0	0	0	2	2	4	31.3
50yr	0	2	2	0	2	0	0	0	0	2	2	4	31.3
043N-044N 020W-019W 100yr	1	3	3	0	2	0	0	0	0	2	4	6	25.0
50yr	1	2	2	0	2	0	0	0	0	2	3	5	26.9
043N-044N 019W-018W 100yr	0	2	2	0	0	0	0	0	0	0	2	2	29.1
50yr	0	1	1	0	0	0	0	0	0	0	1	1	41.4
043N-044N 018W-017W 100yr	0	0	0	0	0	1	0	0	0	1	0	1	43.5
50yr	0	0	0	0	0	1	0	0	0	1	0	1	43.5
043N-044N 017W-016W 100yr	0	3	3	0	0	0	0	0	0	0	3	3	19.1
50yr	0	3	3	0	0	0	0	0	0	0	3	3	19.1
043N-044N 016W-015W 100yr	1	3	3	0	1	0	0	0	0	1	4	5	19.2
50yr	1	3	3	0	1	0	0	0	0	1	4	5	19.2
043N-044N 015W-014W 100yr	1	2	2	0	1	0	0	0	0	1	3	4	21.5
50yr	1	2	2	0	1	0	0	0	0	1	3	4	21.5
043N-044N 014W-013W 100yr	0	2	2	0	0	0	0	0	0	0	2	2	35.0
50yr	0	2	2	0	0	0	0	0	0	0	2	2	35.0
043N-044N 013W-012W 100yr	0	2	2	0	0	0	0	0	0	0	2	2	33.2
50yr	0	2	2	0	0	0	0	0	0	0	2	2	33.2
043N-044N 012W-011W 100yr	0	2	2	0	0	0	0	0	0	0	2	2	37.0
50yr	0	2	2	0	0	0	0	0	0	0	2	2	37.0
043N-044N 011W-010W 100yr	0	2	2	0	0	0	0	0	0	0	2	2	39.0
50yr	0	2	2	0	0	0	0	0	0	0	2	2	39.0
043N-044N 010W-009W 100yr	0	2	2	0	0	0	0	0	0	0	2	2	37.0
50yr	0	2	2	0	0	0	0	0	0	0	2	2	37.0
043N-044N 009W-008W 100yr	0	1	1	0	0	0	0	0	0	0	1	1	18.5
50yr	0	1	1	0	0	0	0	0	0	0	1	1	18.5
043N-044N 008W-007W 100yr	1	0	0	0	0	0	0	0	0	0	1	1	14.6
50yr	1	0	0	0	0	0	0	0	0	0	1	1	14.6
043N-044N 007W-006W 100yr	1	0	0	0	0	0	0	0	0	0	1	1	14.6
50yr	1	0	0	0	0	0	0	0	0	0	1	1	14.6

044°N to 045°N

Grid Cell	TD	TS	G	S	S1	S2	S3	S4	S5	H	<H	All	Spd
044N-045N 086W-085W 100yr	1	0	0	0	0	0	0	0	0	0	1	1	48.2
50yr	1	0	0	0	0	0	0	0	0	0	1	1	48.2
044N-045N 085W-084W 100yr	1	0	0	0	0	0	0	0	0	0	1	1	48.2
50yr	1	0	0	0	0	0	0	0	0	0	1	1	48.2
044N-045N 084W-083W 100yr	2	0	0	0	0	0	0	0	0	0	2	2	31.3
50yr	0	0	0	0	0	0	0	0	0	0	0	0	0.0
044N-045N 083W-082W 100yr	3	0	0	0	0	0	0	0	0	0	3	3	24.2
50yr	1	0	0	0	0	0	0	0	0	0	1	1	10.1

Grid Cell	TD	TS	G	S	S1	S2	S3	S4	S5	H	<H	All	Spd
044N-045N 082W-081W 100yr	1	0	0	0	0	0	0	0	0	0	1	1	10.8
50yr	1	0	0	0	0	0	0	0	0	0	1	1	10.8
044N-045N 080W-079W 100yr	1	0	0	0	0	0	0	0	0	0	1	1	10.1
50yr	1	0	0	0	0	0	0	0	0	0	1	1	10.1
044N-045N 079W-078W 100yr	3	0	0	0	1	0	0	0	0	1	3	4	20.9
50yr	1	0	0	0	1	0	0	0	0	1	1	2	26.5
044N-045N 078W-077W 100yr	2	3	3	0	0	0	0	0	0	0	5	5	23.4
50yr	1	2	2	0	0	0	0	0	0	0	3	3	28.7
044N-045N 077W-076W 100yr	3	4	4	0	0	0	0	0	0	0	7	7	21.8
50yr	1	2	2	0	0	0	0	0	0	0	3	3	28.9
044N-045N 076W-075W 100yr	3	1	1	0	0	0	0	0	0	0	4	4	24.8
50yr	2	1	1	0	0	0	0	0	0	0	3	3	26.2
044N-045N 075W-074W 100yr	1	1	1	0	0	0	0	0	0	0	2	2	9.1
50yr	1	0	0	0	0	0	0	0	0	0	1	1	9.9
044N-045N 074W-073W 100yr	1	1	1	0	1	0	0	0	0	1	2	3	35.1
50yr	1	0	0	0	0	0	0	0	0	0	1	1	78.7
044N-045N 073W-072W 100yr	2	1	1	0	0	0	0	0	0	0	3	3	41.8
50yr	1	1	1	0	0	0	0	0	0	0	2	2	55.1
044N-045N 072W-071W 100yr	1	4	4	0	2	0	0	0	0	2	5	7	31.7
50yr	0	3	3	0	2	0	0	0	0	2	3	5	32.4
044N-045N 071W-070W 100yr	0	6	6	0	2	0	0	0	0	2	6	8	36.5
50yr	0	4	4	0	2	0	0	0	0	2	4	6	36.8
044N-045N 070W-069W 100yr	2	7	5	2	2	0	0	0	0	2	9	11	28.0
50yr	1	6	4	2	1	0	0	0	0	1	7	8	28.8
044N-045N 069W-068W 100yr	3	7	4	3	3	0	0	0	0	3	10	13	29.7
50yr	2	6	3	3	1	0	0	0	0	1	8	9	30.1
044N-045N 068W-067W 100yr	3	8	4	4	3	0	1	0	0	4	11	15	30.5
50yr	2	5	1	4	1	0	1	0	0	2	7	9	29.2
044N-045N 067W-066W 100yr	2	8	7	1	3	3	0	0	0	6	10	16	32.4
50yr	1	5	4	1	1	1	0	0	0	2	6	8	27.4
044N-045N 066W-065W 100yr	2	7	4	3	4	3	0	0	0	7	9	16	31.6
50yr	1	4	3	1	2	1	0	0	0	3	5	8	27.2
044N-045N 065W-064W 100yr	1	8	5	3	4	1	0	0	0	5	9	14	27.7
50yr	1	3	2	1	1	0	0	0	0	1	4	5	28.8
044N-045N 064W-063W 100yr	0	8	4	4	3	2	0	0	0	5	8	13	22.6
50yr	0	3	1	2	2	0	0	0	0	2	3	5	21.9
044N-045N 063W-062W 100yr	0	7	2	5	9	2	0	0	0	11	7	18	23.2
50yr	0	4	1	3	5	0	0	0	0	5	4	9	23.6
044N-045N 062W-061W 100yr	0	11	2	9	9	0	0	0	0	9	11	20	27.1
50yr	0	9	1	8	5	0	0	0	0	5	9	14	28.2
044N-045N 061W-060W 100yr	0	15	4	11	9	0	0	0	0	9	15	24	31.1
50yr	0	12	2	10	7	0	0	0	0	7	12	19	31.7
044N-045N 060W-059W 100yr	1	12	4	8	8	0	0	0	0	8	13	21	31.4
50yr	1	9	2	7	3	0	0	0	0	3	10	13	32.8
044N-045N 059W-058W 100yr	1	9	4	5	8	1	0	0	0	9	10	19	29.7
50yr	1	6	3	3	2	1	0	0	0	3	7	10	31.2
044N-045N 058W-057W 100yr	2	11	6	5	6	2	0	0	0	8	13	21	29.0
50yr	2	9	5	4	1	1	0	0	0	2	11	13	30.0

Grid Cell	TD	TS	G	S	S1	S2	S3	S4	S5	H	<H	All	Spd
044N-045N 057W-056W 100yr	2	10	4	6	9	2	0	1	0	12	12	24	30.9
50yr	2	8	2	6	4	1	0	1	0	6	10	16	32.6
044N-045N 056W-055W 100yr	1	11	4	7	9	1	1	1	0	12	12	24	31.8
50yr	1	9	2	7	3	1	1	1	0	6	10	16	33.7
044N-045N 055W-054W 100yr	1	15	7	8	8	1	1	1	0	11	16	27	33.5
50yr	1	10	3	7	4	1	1	1	0	7	11	18	36.7
044N-045N 054W-053W 100yr	1	12	8	4	8	0	1	0	0	9	13	22	32.8
50yr	1	8	4	4	6	0	1	0	0	7	9	16	34.5
044N-045N 053W-052W 100yr	1	11	7	4	8	1	0	0	0	9	12	21	33.8
50yr	1	6	3	3	6	1	0	0	0	7	7	14	36.6
044N-045N 052W-051W 100yr	1	11	8	3	6	0	0	0	0	6	12	18	30.3
50yr	1	6	4	2	6	0	0	0	0	6	7	13	32.0
044N-045N 051W-050W 100yr	2	12	6	6	6	0	0	0	0	6	14	20	30.1
50yr	2	9	5	4	5	0	0	0	0	5	11	16	29.1
044N-045N 050W-049W 100yr	2	8	4	4	7	0	0	0	0	7	10	17	29.9
50yr	2	6	4	2	5	0	0	0	0	5	8	13	29.0
044N-045N 049W-048W 100yr	1	6	4	2	8	1	0	0	0	9	7	16	31.2
50yr	1	4	3	1	5	1	0	0	0	6	5	11	32.5
044N-045N 048W-047W 100yr	1	7	4	3	6	2	0	0	0	8	8	16	31.6
50yr	1	5	2	3	4	1	0	0	0	5	6	11	32.4
044N-045N 047W-046W 100yr	1	8	3	5	6	2	0	0	0	8	9	17	28.0
50yr	1	7	2	5	3	1	0	0	0	4	8	12	29.0
044N-045N 046W-045W 100yr	1	9	3	6	5	3	0	0	0	8	10	18	31.3
50yr	1	7	2	5	3	2	0	0	0	5	8	13	33.2
044N-045N 045W-044W 100yr	1	7	4	3	8	2	0	0	0	10	8	18	31.6
50yr	1	5	3	2	7	2	0	0	0	9	6	15	32.4
044N-045N 044W-043W 100yr	0	6	3	3	8	1	0	0	0	9	6	15	35.4
50yr	0	5	2	3	8	1	0	0	0	9	5	14	35.6
044N-045N 043W-042W 100yr	0	6	2	4	6	0	1	0	0	7	6	13	39.1
50yr	0	5	2	3	6	0	1	0	0	7	5	12	37.3
044N-045N 042W-041W 100yr	0	9	2	7	0	0	1	0	0	1	9	10	37.7
50yr	0	7	2	5	0	0	1	0	0	1	7	8	35.5
044N-045N 041W-040W 100yr	0	6	3	3	2	0	0	0	0	2	6	8	32.9
50yr	0	4	2	2	1	0	0	0	0	1	4	5	36.3
044N-045N 040W-039W 100yr	0	5	3	2	6	0	0	0	0	6	5	11	36.4
50yr	0	4	3	1	5	0	0	0	0	5	4	9	38.9
044N-045N 039W-038W 100yr	0	6	3	3	5	0	0	0	0	5	6	11	35.2
50yr	0	6	3	3	4	0	0	0	0	4	6	10	35.7
044N-045N 038W-037W 100yr	0	9	4	5	5	0	0	0	0	5	9	14	29.2
50yr	0	8	4	4	3	0	0	0	0	3	8	11	30.0
044N-045N 037W-036W 100yr	0	7	4	3	4	1	0	0	0	5	7	12	31.8
50yr	0	6	4	2	2	1	0	0	0	3	6	9	32.2
044N-045N 036W-035W 100yr	0	7	3	4	3	0	0	0	0	3	7	10	29.6
50yr	0	5	3	2	2	0	0	0	0	2	5	7	28.6
044N-045N 035W-034W 100yr	0	7	3	4	3	0	0	0	0	3	7	10	30.7
50yr	0	5	3	2	3	0	0	0	0	3	5	8	31.1
044N-045N 034W-033W 100yr	0	1	0	1	5	0	0	0	0	5	1	6	29.7
50yr	0	1	0	1	5	0	0	0	0	5	1	6	29.7

Grid Cell	TD	TS	G	S	S1	S2	S3	S4	S5	H	<H	All	Spd
044N-045N 033W-032W 100yr	0	1	1	0	3	0	0	0	0	3	1	4	23.2
50yr	0	1	1	0	3	0	0	0	0	3	1	4	23.2
044N-045N 032W-031W 100yr	0	3	1	2	3	0	0	0	0	3	3	6	21.0
50yr	0	2	0	2	3	0	0	0	0	3	2	5	21.4
044N-045N 031W-030W 100yr	0	5	1	4	1	0	0	0	0	1	5	6	22.1
50yr	0	4	0	4	1	0	0	0	0	1	4	5	22.8
044N-045N 030W-029W 100yr	0	3	0	3	1	0	0	0	0	1	3	4	25.0
50yr	0	3	0	3	1	0	0	0	0	1	3	4	25.0
044N-045N 029W-028W 100yr	0	1	0	1	2	0	0	0	0	2	1	3	23.7
50yr	0	1	0	1	2	0	0	0	0	2	1	3	23.7
044N-045N 028W-027W 100yr	0	2	0	2	2	0	0	0	0	2	2	4	29.7
50yr	0	2	0	2	2	0	0	0	0	2	2	4	29.7
044N-045N 027W-026W 100yr	0	2	1	1	1	0	0	0	0	1	2	3	34.5
50yr	0	2	1	1	1	0	0	0	0	1	2	3	34.5
044N-045N 026W-025W 100yr	0	1	0	1	1	0	0	0	0	1	1	2	21.8
50yr	0	1	0	1	1	0	0	0	0	1	1	2	21.8
044N-045N 025W-024W 100yr	0	2	0	2	1	0	0	0	0	1	2	3	24.1
50yr	0	2	0	2	1	0	0	0	0	1	2	3	24.1
044N-045N 024W-023W 100yr	0	2	1	1	2	0	0	0	0	2	2	4	31.2
50yr	0	2	1	1	2	0	0	0	0	2	2	4	31.2
044N-045N 023W-022W 100yr	0	2	1	1	2	0	0	0	0	2	2	4	29.8
50yr	0	2	1	1	2	0	0	0	0	2	2	4	29.8
044N-045N 022W-021W 100yr	0	0	0	0	1	0	0	0	0	1	0	1	24.1
50yr	0	0	0	0	1	0	0	0	0	1	0	1	24.1
044N-045N 021W-020W 100yr	0	2	2	0	1	0	0	0	0	1	2	3	23.3
50yr	0	2	2	0	1	0	0	0	0	1	2	3	23.3
044N-045N 020W-019W 100yr	0	4	4	0	3	0	0	0	0	3	4	7	26.0
50yr	0	4	4	0	3	0	0	0	0	3	4	7	26.0
044N-045N 019W-018W 100yr	0	5	5	0	3	0	0	0	0	3	5	8	28.4
50yr	0	4	4	0	3	0	0	0	0	3	4	7	29.9
044N-045N 018W-017W 100yr	0	5	5	0	3	0	0	0	0	3	5	8	30.7
50yr	0	4	4	0	3	0	0	0	0	3	4	7	32.5
044N-045N 017W-016W 100yr	0	5	5	0	1	0	0	0	0	1	5	6	22.3
50yr	0	4	4	0	1	0	0	0	0	1	4	5	22.9
044N-045N 016W-015W 100yr	0	3	3	0	1	0	0	0	0	1	3	4	25.8
50yr	0	3	3	0	1	0	0	0	0	1	3	4	25.8
044N-045N 015W-014W 100yr	1	1	1	0	1	0	0	0	0	1	2	3	27.4
50yr	1	1	1	0	1	0	0	0	0	1	2	3	27.4
044N-045N 014W-013W 100yr	1	2	1	1	0	0	0	0	0	0	3	3	27.5
50yr	1	2	1	1	0	0	0	0	0	0	3	3	27.5
044N-045N 013W-012W 100yr	0	1	0	1	0	0	0	0	0	0	1	1	23.1
50yr	0	1	0	1	0	0	0	0	0	0	1	1	23.1
044N-045N 012W-011W 100yr	0	1	0	1	0	0	0	0	0	0	1	1	23.4
50yr	0	1	0	1	0	0	0	0	0	0	1	1	23.4
044N-045N 011W-010W 100yr	0	1	0	1	0	0	0	0	0	0	1	1	23.7
50yr	0	1	0	1	0	0	0	0	0	0	1	1	23.7
044N-045N 010W-009W 100yr	0	2	1	1	0	0	0	0	0	0	2	2	39.6
50yr	0	2	1	1	0	0	0	0	0	0	2	2	39.6

Grid Cell	TD	TS	G	S	S1	S2	S3	S4	S5	H	<H	All	Spd
044N-045N 009W-008W 100yr	0	2	1	1	0	0	0	0	0	0	2	2	39.8
50yr	0	2	1	1	0	0	0	0	0	0	2	2	39.8
044N-045N 008W-007W 100yr	0	2	2	0	0	0	0	0	0	0	2	2	40.0
50yr	0	2	2	0	0	0	0	0	0	0	2	2	40.0
044N-045N 007W-006W 100yr	0	2	2	0	0	0	0	0	0	0	2	2	40.0
50yr	0	2	2	0	0	0	0	0	0	0	2	2	40.0
044N-045N 006W-005W 100yr	0	2	2	0	0	0	0	0	0	0	2	2	39.8
50yr	0	2	2	0	0	0	0	0	0	0	2	2	39.8
044N-045N 005W-004W 100yr	0	2	2	0	0	0	0	0	0	0	2	2	39.5
50yr	0	2	2	0	0	0	0	0	0	0	2	2	39.5
044N-045N 004W-003W 100yr	0	2	2	0	0	0	0	0	0	0	2	2	39.5
50yr	0	2	2	0	0	0	0	0	0	0	2	2	39.5
044N-045N 003W-002W 100yr	0	1	1	0	0	0	0	0	0	0	1	1	23.6
50yr	0	1	1	0	0	0	0	0	0	0	1	1	23.6
044N-045N 002W-001W 100yr	0	1	1	0	0	0	0	0	0	0	1	1	23.6
50yr	0	1	1	0	0	0	0	0	0	0	1	1	23.6
044N-045N 001W-000W 100yr	0	1	1	0	0	0	0	0	0	0	1	1	23.6
50yr	0	1	1	0	0	0	0	0	0	0	1	1	23.6
044N-045N 000W-001E 100yr	0	1	1	0	0	0	0	0	0	0	1	1	23.6
50yr	0	1	1	0	0	0	0	0	0	0	1	1	23.6

045°N to 046°N

Grid Cell	TD	TS	G	S	S1	S2	S3	S4	S5	H	<H	All	Spd
045N-046N 085W-084W 100yr	1	0	0	0	0	0	0	0	0	0	1	1	48.2
50yr	1	0	0	0	0	0	0	0	0	0	1	1	48.2
045N-046N 084W-083W 100yr	1	0	0	0	0	0	0	0	0	0	1	1	9.2
50yr	1	0	0	0	0	0	0	0	0	0	1	1	9.2
045N-046N 083W-082W 100yr	2	0	0	0	0	0	0	0	0	0	2	2	20.8
50yr	1	0	0	0	0	0	0	0	0	0	1	1	9.2
045N-046N 082W-081W 100yr	1	0	0	0	0	0	0	0	0	0	1	1	32.3
50yr	0	0	0	0	0	0	0	0	0	0	0	0	0.0
045N-046N 080W-079W 100yr	0	1	1	0	0	0	0	0	0	0	1	1	23.9
50yr	0	0	0	0	0	0	0	0	0	0	0	0	0.0
045N-046N 079W-078W 100yr	0	1	1	0	1	0	0	0	0	1	1	2	32.0
50yr	0	0	0	0	1	0	0	0	0	1	0	1	40.1
045N-046N 077W-076W 100yr	2	1	1	0	0	0	0	0	0	0	3	3	28.0
50yr	0	1	1	0	0	0	0	0	0	0	1	1	55.9
045N-046N 076W-075W 100yr	5	1	1	0	0	0	0	0	0	0	6	6	21.1
50yr	2	1	1	0	0	0	0	0	0	0	3	3	26.1
045N-046N 075W-074W 100yr	4	2	2	0	0	0	0	0	0	0	6	6	22.6
50yr	2	1	1	0	0	0	0	0	0	0	3	3	24.5
045N-046N 074W-073W 100yr	3	0	0	0	1	0	0	0	0	1	3	4	14.1
50yr	1	0	0	0	0	0	0	0	0	0	1	1	13.3
045N-046N 073W-072W 100yr	3	0	0	0	0	0	0	0	0	0	3	3	32.5
50yr	2	0	0	0	0	0	0	0	0	0	2	2	44.7

Grid Cell	TD	TS	G	S	S1	S2	S3	S4	S5	H	<H	All	Spd
045N-046N 072W-071W 100yr	4	0	0	0	1	0	0	0	0	1	4	5	28.8
50yr	2	0	0	0	1	0	0	0	0	1	2	3	39.9
045N-046N 071W-070W 100yr	2	4	4	0	1	0	0	0	0	1	6	7	37.4
50yr	1	3	3	0	1	0	0	0	0	1	4	5	40.6
045N-046N 070W-069W 100yr	1	5	5	0	2	0	0	0	0	2	6	8	29.9
50yr	1	3	3	0	2	0	0	0	0	2	4	6	28.1
045N-046N 069W-068W 100yr	0	5	3	2	0	0	0	0	0	0	5	5	32.3
50yr	0	4	3	1	0	0	0	0	0	0	4	4	33.3
045N-046N 068W-067W 100yr	0	8	4	4	1	1	0	0	0	2	8	10	33.3
50yr	0	6	3	3	1	1	0	0	0	2	6	8	34.9
045N-046N 067W-066W 100yr	0	10	6	4	2	1	0	0	0	3	10	13	31.2
50yr	0	5	2	3	2	1	0	0	0	3	5	8	33.0
045N-046N 066W-065W 100yr	2	8	4	4	2	2	0	0	0	4	10	14	32.1
50yr	1	4	2	2	1	1	0	0	0	2	5	7	29.7
045N-046N 065W-064W 100yr	2	9	6	3	1	3	0	0	0	4	11	15	33.5
50yr	1	6	4	2	0	1	0	0	0	1	7	8	30.0
045N-046N 064W-063W 100yr	2	10	6	4	1	2	0	0	0	3	12	15	33.9
50yr	1	4	2	2	0	0	0	0	0	0	5	5	30.6
045N-046N 063W-062W 100yr	2	9	4	5	3	0	0	0	0	3	11	14	24.9
50yr	1	3	1	2	1	0	0	0	0	1	4	5	25.2
045N-046N 062W-061W 100yr	2	11	4	7	8	0	0	0	0	8	13	21	25.5
50yr	1	4	1	3	5	0	0	0	0	5	5	10	24.7
045N-046N 061W-060W 100yr	1	11	3	8	11	0	0	0	0	11	12	23	27.6
50yr	0	9	3	6	8	0	0	0	0	8	9	17	26.6
045N-046N 060W-059W 100yr	1	14	5	9	4	0	0	0	0	4	15	19	29.7
50yr	0	13	4	9	4	0	0	0	0	4	13	17	29.3
045N-046N 059W-058W 100yr	1	13	6	7	5	1	0	0	0	6	14	20	31.6
50yr	0	10	4	6	3	1	0	0	0	4	10	14	32.0
045N-046N 058W-057W 100yr	1	11	4	7	6	1	0	0	0	7	12	19	33.2
50yr	0	7	2	5	2	1	0	0	0	3	7	10	33.1
045N-046N 057W-056W 100yr	1	7	1	6	5	0	0	0	0	5	8	13	34.1
50yr	1	5	1	4	2	0	0	0	0	2	6	8	35.4
045N-046N 056W-055W 100yr	1	9	2	7	7	0	0	1	0	8	10	18	32.8
50yr	1	6	1	5	3	0	0	1	0	4	7	11	35.6
045N-046N 055W-054W 100yr	0	10	3	7	8	1	0	1	0	10	10	20	32.2
50yr	0	7	1	6	3	1	0	1	0	5	7	12	36.7
045N-046N 054W-053W 100yr	0	10	5	5	4	1	2	0	0	7	10	17	32.3
50yr	0	8	4	4	2	1	2	0	0	5	8	13	34.0
045N-046N 053W-052W 100yr	0	8	3	5	5	3	1	0	0	9	8	17	34.5
50yr	0	7	2	5	2	3	1	0	0	6	7	13	35.0
045N-046N 052W-051W 100yr	0	9	6	3	7	1	0	0	0	8	9	17	32.1
50yr	0	4	2	2	4	1	0	0	0	5	4	9	36.3
045N-046N 051W-050W 100yr	0	12	5	7	8	0	0	0	0	8	12	20	30.8
50yr	0	7	1	6	4	0	0	0	0	4	7	11	31.0
045N-046N 050W-049W 100yr	0	12	7	5	5	0	0	0	0	5	12	17	30.5
50yr	0	7	3	4	3	0	0	0	0	3	7	10	32.2
045N-046N 049W-048W 100yr	0	8	5	3	7	0	0	0	0	7	8	15	30.8
50yr	0	5	2	3	4	0	0	0	0	4	5	9	29.6

Grid Cell	TD	TS	G	S	S1	S2	S3	S4	S5	H	<H	All	Spd
045N-046N 048W-047W 100yr	0	7	3	4	5	0	0	0	0	5	7	12	31.1
50yr	0	5	1	4	2	0	0	0	0	2	5	7	26.8
045N-046N 047W-046W 100yr	0	6	2	4	6	0	0	0	0	6	6	12	27.0
50yr	0	5	1	4	3	0	0	0	0	3	5	8	27.6
045N-046N 046W-045W 100yr	0	9	2	7	4	2	0	0	0	6	9	15	27.2
50yr	0	6	1	5	2	1	0	0	0	3	6	9	30.0
045N-046N 045W-044W 100yr	0	8	2	6	4	2	0	0	0	6	8	14	29.5
50yr	0	7	2	5	2	1	0	0	0	3	7	10	31.0
045N-046N 044W-043W 100yr	0	6	3	3	5	2	0	0	0	7	6	13	32.8
50yr	0	5	2	3	3	1	0	0	0	4	5	9	34.0
045N-046N 043W-042W 100yr	0	4	3	1	10	1	0	0	0	11	4	15	34.3
50yr	0	3	2	1	8	0	0	0	0	8	3	11	35.7
045N-046N 042W-041W 100yr	0	7	2	5	9	1	0	0	0	10	7	17	37.8
50yr	0	5	1	4	7	1	0	0	0	8	5	13	37.8
045N-046N 041W-040W 100yr	0	7	2	5	7	1	0	0	0	8	7	15	38.0
50yr	0	4	0	4	6	1	0	0	0	7	4	11	39.1
045N-046N 040W-039W 100yr	0	7	3	4	4	1	0	0	0	5	7	12	39.7
50yr	0	5	1	4	4	1	0	0	0	5	5	10	41.1
045N-046N 039W-038W 100yr	0	5	2	3	4	0	0	0	0	4	5	9	35.4
50yr	0	5	2	3	4	0	0	0	0	4	5	9	35.4
045N-046N 038W-037W 100yr	0	7	3	4	3	0	0	0	0	3	7	10	30.8
50yr	0	7	3	4	3	0	0	0	0	3	7	10	30.8
045N-046N 037W-036W 100yr	0	4	2	2	5	0	0	0	0	5	4	9	34.3
50yr	0	4	2	2	4	0	0	0	0	4	4	8	34.6
045N-046N 036W-035W 100yr	0	4	1	3	5	0	0	0	0	5	4	9	31.8
50yr	0	4	1	3	3	0	0	0	0	3	4	7	30.7
045N-046N 035W-034W 100yr	0	12	5	7	4	0	0	0	0	4	12	16	31.9
50yr	0	10	5	5	2	0	0	0	0	2	10	12	31.8
045N-046N 034W-033W 100yr	0	10	4	6	5	0	0	0	0	5	10	15	31.2
50yr	0	8	4	4	4	0	0	0	0	4	8	12	31.2
045N-046N 033W-032W 100yr	0	9	4	5	7	0	0	0	0	7	9	16	31.0
50yr	0	8	4	4	6	0	0	0	0	6	8	14	30.2
045N-046N 032W-031W 100yr	0	5	3	2	3	0	0	0	0	3	5	8	30.9
50yr	0	4	3	1	3	0	0	0	0	3	4	7	29.6
045N-046N 031W-030W 100yr	0	3	1	2	1	0	0	0	0	1	3	4	26.0
50yr	0	2	0	2	1	0	0	0	0	1	2	3	28.2
045N-046N 030W-029W 100yr	0	3	0	3	0	0	0	0	0	0	3	3	20.0
50yr	0	3	0	3	0	0	0	0	0	0	3	3	20.0
045N-046N 029W-028W 100yr	0	3	0	3	0	0	0	0	0	0	3	3	21.9
50yr	0	3	0	3	0	0	0	0	0	0	3	3	21.9
045N-046N 028W-027W 100yr	0	3	0	3	1	0	0	0	0	1	3	4	21.5
50yr	0	3	0	3	1	0	0	0	0	1	3	4	21.5
045N-046N 027W-026W 100yr	0	2	0	2	1	0	0	0	0	1	2	3	29.0
50yr	0	2	0	2	1	0	0	0	0	1	2	3	29.0
045N-046N 026W-025W 100yr	0	2	0	2	1	0	0	0	0	1	2	3	29.7
50yr	0	2	0	2	1	0	0	0	0	1	2	3	29.7
045N-046N 025W-024W 100yr	0	4	1	3	0	0	0	0	0	0	4	4	30.6
50yr	0	4	1	3	0	0	0	0	0	0	4	4	30.6

Grid Cell	TD	TS	G	S	S1	S2	S3	S4	S5	H	<H	All	Spd
045N-046N 024W-023W 100yr	0	6	3	3	0	0	0	0	0	0	6	6	23.6
50yr	0	6	3	3	0	0	0	0	0	0	6	6	23.6
045N-046N 023W-022W 100yr	0	5	3	2	1	0	0	0	0	1	5	6	26.5
50yr	0	5	3	2	1	0	0	0	0	1	5	6	26.5
045N-046N 022W-021W 100yr	0	3	3	0	1	0	0	0	0	1	3	4	29.1
50yr	0	3	3	0	1	0	0	0	0	1	3	4	29.1
045N-046N 021W-020W 100yr	0	4	3	1	1	0	0	0	0	1	4	5	24.8
50yr	0	4	3	1	1	0	0	0	0	1	4	5	24.8
045N-046N 020W-019W 100yr	0	3	2	1	1	0	0	0	0	1	3	4	27.3
50yr	0	3	2	1	1	0	0	0	0	1	3	4	27.3
045N-046N 019W-018W 100yr	0	2	1	1	1	0	0	0	0	1	2	3	19.5
50yr	0	2	1	1	1	0	0	0	0	1	2	3	19.5
045N-046N 018W-017W 100yr	0	4	3	1	3	0	0	0	0	3	4	7	29.9
50yr	0	4	3	1	3	0	0	0	0	3	4	7	29.9
045N-046N 017W-016W 100yr	0	3	2	1	1	0	0	0	0	1	3	4	28.9
50yr	0	2	1	1	1	0	0	0	0	1	2	3	31.6
045N-046N 016W-015W 100yr	0	2	2	0	0	0	0	0	0	0	2	2	26.8
50yr	0	1	1	0	0	0	0	0	0	0	1	1	32.8
045N-046N 015W-014W 100yr	0	1	1	0	0	0	0	0	0	0	1	1	20.7
50yr	0	0	0	0	0	0	0	0	0	0	0	0	0.0
045N-046N 005W-004W 100yr	0	1	1	0	0	0	0	0	0	0	1	1	55.5
50yr	0	1	1	0	0	0	0	0	0	0	1	1	55.5
045N-046N 004W-003W 100yr	0	1	1	0	0	0	0	0	0	0	1	1	55.5
50yr	0	1	1	0	0	0	0	0	0	0	1	1	55.5
045N-046N 000W-001E 100yr	0	1	1	0	0	0	0	0	0	0	1	1	23.6
50yr	0	1	1	0	0	0	0	0	0	0	1	1	23.6
045N-046N 001E-002E 100yr	0	1	1	0	0	0	0	0	0	0	1	1	23.6
50yr	0	1	1	0	0	0	0	0	0	0	1	1	23.6

046°N to 047°N

Grid Cell	TD	TS	G	S	S1	S2	S3	S4	S5	H	<H	All	Spd
046N-047N 085W-084W 100yr	1	0	0	0	0	0	0	0	0	0	1	1	48.2
50yr	1	0	0	0	0	0	0	0	0	0	1	1	48.2
046N-047N 084W-083W 100yr	2	0	0	0	0	0	0	0	0	0	2	2	22.7
50yr	2	0	0	0	0	0	0	0	0	0	2	2	22.7
046N-047N 083W-082W 100yr	2	0	0	0	0	0	0	0	0	0	2	2	16.7
50yr	2	0	0	0	0	0	0	0	0	0	2	2	16.7
046N-047N 082W-081W 100yr	2	0	0	0	0	0	0	0	0	0	2	2	28.4
50yr	1	0	0	0	0	0	0	0	0	0	1	1	24.4
046N-047N 080W-079W 100yr	0	1	0	1	0	0	0	0	0	0	1	1	37.3
50yr	0	1	0	1	0	0	0	0	0	0	1	1	37.3
046N-047N 079W-078W 100yr	0	2	1	1	0	0	0	0	0	0	2	2	30.6
50yr	0	1	0	1	0	0	0	0	0	0	1	1	37.3
046N-047N 078W-077W 100yr	0	1	1	0	0	0	0	0	0	0	1	1	23.9
50yr	0	0	0	0	0	0	0	0	0	0	0	0	0.0
046N-047N 077W-076W 100yr	0	1	1	0	0	0	0	0	0	0	1	1	31.4
50yr	0	0	0	0	0	0	0	0	0	0	0	0	0.0

Grid Cell	TD	TS	G	S	S1	S2	S3	S4	S5	H	<H	All	Spd
046N-047N 076W-075W 100yr	1	1	1	0	0	0	0	0	0	0	2	2	25.3
50yr	0	0	0	0	0	0	0	0	0	0	0	0	0.0
046N-047N 075W-074W 100yr	2	2	2	0	0	0	0	0	0	0	4	4	31.1
50yr	0	1	1	0	0	0	0	0	0	0	1	1	51.9
046N-047N 074W-073W 100yr	2	1	1	0	0	0	0	0	0	0	3	3	28.5
50yr	0	1	1	0	0	0	0	0	0	0	1	1	47.8
046N-047N 073W-072W 100yr	2	1	1	0	0	0	0	0	0	0	3	3	34.0
50yr	0	1	1	0	0	0	0	0	0	0	1	1	47.8
046N-047N 072W-071W 100yr	3	0	0	0	1	0	0	0	0	1	3	4	19.5
50yr	1	0	0	0	1	0	0	0	0	1	1	2	19.4
046N-047N 071W-070W 100yr	4	2	2	0	0	0	0	0	0	0	6	6	28.8
50yr	2	2	2	0	0	0	0	0	0	0	4	4	36.5
046N-047N 070W-069W 100yr	4	4	3	1	1	0	0	0	0	1	8	9	32.5
50yr	3	3	2	1	1	0	0	0	0	1	6	7	33.5
046N-047N 069W-068W 100yr	1	3	2	1	1	0	0	0	0	1	4	5	31.2
50yr	1	2	1	1	1	0	0	0	0	1	3	4	27.6
046N-047N 068W-067W 100yr	0	5	3	2	0	0	0	0	0	0	5	5	31.2
50yr	0	3	2	1	0	0	0	0	0	0	3	3	27.5
046N-047N 067W-066W 100yr	0	8	4	4	1	1	0	0	0	2	8	10	33.5
50yr	0	5	2	3	1	1	0	0	0	2	5	7	35.3
046N-047N 066W-065W 100yr	0	11	7	4	2	0	0	0	0	2	11	13	28.4
50yr	0	5	2	3	2	0	0	0	0	2	5	7	33.7
046N-047N 065W-064W 100yr	0	11	8	3	0	1	0	0	0	1	11	12	27.0
50yr	0	8	5	3	0	1	0	0	0	1	8	9	29.6
046N-047N 064W-063W 100yr	0	10	7	3	0	3	0	0	0	3	10	13	30.7
50yr	0	8	5	3	0	1	0	0	0	1	8	9	27.4
046N-047N 063W-062W 100yr	0	12	7	5	2	1	0	0	0	3	12	15	27.9
50yr	0	8	4	4	0	0	0	0	0	0	8	8	24.9
046N-047N 062W-061W 100yr	1	11	8	3	3	1	0	0	0	4	12	16	28.9
50yr	1	3	2	1	1	0	0	0	0	1	4	5	31.8
046N-047N 061W-060W 100yr	2	9	3	6	8	0	0	0	0	8	11	19	27.2
50yr	1	3	0	3	5	0	0	0	0	5	4	9	26.7
046N-047N 060W-059W 100yr	1	11	2	9	6	0	0	0	0	6	12	18	28.6
50yr	1	8	2	6	4	0	0	0	0	4	9	13	28.9
046N-047N 059W-058W 100yr	0	8	3	5	3	0	0	0	0	3	8	11	28.8
50yr	0	7	3	4	1	0	0	0	0	1	7	8	30.1
046N-047N 058W-057W 100yr	1	13	6	7	3	1	0	0	0	4	14	18	31.5
50yr	0	10	4	6	1	1	0	0	0	2	10	12	32.3
046N-047N 057W-056W 100yr	1	12	5	7	1	1	0	0	0	2	13	15	33.9
50yr	0	7	3	4	1	1	0	0	0	2	7	9	34.0
046N-047N 056W-055W 100yr	1	11	4	7	1	0	0	0	0	1	12	13	32.3
50yr	0	7	3	4	1	0	0	0	0	1	7	8	32.5
046N-047N 055W-054W 100yr	1	10	3	7	5	0	0	0	0	5	11	16	31.8
50yr	0	6	2	4	3	0	0	0	0	3	6	9	32.6
046N-047N 054W-053W 100yr	1	13	5	8	3	0	0	0	0	3	14	17	31.4
50yr	0	8	4	4	1	0	0	0	0	1	8	9	32.9
046N-047N 053W-052W 100yr	1	9	2	7	3	1	1	0	0	5	10	15	34.8
50yr	0	7	2	5	2	1	1	0	0	4	7	11	34.3

Grid Cell	TD	TS	G	S	S1	S2	S3	S4	S5	H	<H	All	Spd
046N-047N 052W-051W 100yr	1	8	2	6	2	2	1	0	0	5	9	14	34.4
50yr	0	6	1	5	1	2	1	0	0	4	6	10	34.7
046N-047N 051W-050W 100yr	1	6	1	5	6	2	1	0	0	9	7	16	34.2
50yr	0	5	0	5	4	2	1	0	0	7	5	12	33.5
046N-047N 050W-049W 100yr	1	7	1	6	7	0	0	0	0	7	8	15	33.2
50yr	0	5	0	5	4	0	0	0	0	4	5	9	34.5
046N-047N 049W-048W 100yr	1	8	3	5	6	0	0	0	0	6	9	15	32.7
50yr	0	5	1	4	4	0	0	0	0	4	5	9	33.1
046N-047N 048W-047W 100yr	0	8	4	4	4	0	0	0	0	4	8	12	32.1
50yr	0	5	1	4	2	0	0	0	0	2	5	7	30.0
046N-047N 047W-046W 100yr	0	8	3	5	3	0	0	0	0	3	8	11	27.6
50yr	0	6	1	5	2	0	0	0	0	2	6	8	24.7
046N-047N 046W-045W 100yr	0	9	5	4	3	0	0	0	0	3	9	12	27.5
50yr	0	4	1	3	2	0	0	0	0	2	4	6	25.1
046N-047N 045W-044W 100yr	0	11	5	6	4	0	0	0	0	4	11	15	29.7
50yr	0	7	2	5	3	0	0	0	0	3	7	10	28.6
046N-047N 044W-043W 100yr	0	10	4	6	2	1	0	0	0	3	10	13	34.2
50yr	0	7	2	5	2	1	0	0	0	3	7	10	32.0
046N-047N 043W-042W 100yr	0	7	3	4	3	2	0	0	0	5	7	12	34.7
50yr	0	5	2	3	3	1	0	0	0	4	5	9	33.5
046N-047N 042W-041W 100yr	0	5	1	4	5	1	0	0	0	6	5	11	31.6
50yr	0	4	1	3	4	0	0	0	0	4	4	8	31.3
046N-047N 041W-040W 100yr	0	3	1	2	9	2	0	0	0	11	3	14	33.6
50yr	0	3	1	2	7	1	0	0	0	8	3	11	34.8
046N-047N 040W-039W 100yr	0	4	2	2	9	2	0	0	0	11	4	15	36.9
50yr	0	2	1	1	8	1	0	0	0	9	2	11	40.2
046N-047N 039W-038W 100yr	0	5	2	3	7	1	0	0	0	8	5	13	34.3
50yr	0	3	1	2	6	1	0	0	0	7	3	10	37.2
046N-047N 038W-037W 100yr	0	7	1	6	4	0	0	0	0	4	7	11	29.3
50yr	0	6	1	5	4	0	0	0	0	4	6	10	31.2
046N-047N 037W-036W 100yr	0	7	3	4	4	0	0	0	0	4	7	11	32.0
50yr	0	6	3	3	4	0	0	0	0	4	6	10	34.2
046N-047N 036W-035W 100yr	0	7	3	4	4	0	0	0	0	4	7	11	31.6
50yr	0	6	3	3	4	0	0	0	0	4	6	10	33.7
046N-047N 035W-034W 100yr	0	8	3	5	3	0	0	0	0	3	8	11	35.2
50yr	0	8	3	5	2	0	0	0	0	2	8	10	34.8
046N-047N 034W-033W 100yr	1	4	1	3	2	0	0	0	0	2	5	7	35.1
50yr	1	3	1	2	1	0	0	0	0	1	4	5	36.5
046N-047N 033W-032W 100yr	1	6	0	6	4	0	0	0	0	4	7	11	32.8
50yr	1	5	0	5	2	0	0	0	0	2	6	8	33.9
046N-047N 032W-031W 100yr	0	8	2	6	3	0	0	0	0	3	8	11	34.8
50yr	0	7	2	5	2	0	0	0	0	2	7	9	34.0
046N-047N 031W-030W 100yr	0	8	3	5	1	0	0	0	0	1	8	9	31.0
50yr	0	6	2	4	0	0	0	0	0	0	6	6	30.3
046N-047N 030W-029W 100yr	0	6	3	3	1	0	0	0	0	1	6	7	32.0
50yr	0	4	2	2	0	0	0	0	0	0	4	4	31.6
046N-047N 029W-028W 100yr	0	4	1	3	1	0	0	0	0	1	4	5	31.5
50yr	0	3	1	2	0	0	0	0	0	0	3	3	27.0

Grid Cell	TD	TS	G	S	S1	S2	S3	S4	S5	H	<H	All	Spd
046N-047N 028W-027W 100yr	0	3	1	2	0	0	0	0	0	0	3	3	28.5
50yr	0	3	1	2	0	0	0	0	0	0	3	3	28.5
046N-047N 027W-026W 100yr	0	4	2	2	0	0	0	0	0	0	4	4	25.0
50yr	0	4	2	2	0	0	0	0	0	0	4	4	25.0
046N-047N 026W-025W 100yr	0	6	3	3	1	0	0	0	0	1	6	7	26.5
50yr	0	6	3	3	1	0	0	0	0	1	6	7	26.5
046N-047N 025W-024W 100yr	0	5	2	3	1	0	0	0	0	1	5	6	25.7
50yr	0	5	2	3	1	0	0	0	0	1	5	6	25.7
046N-047N 024W-023W 100yr	0	4	2	2	1	0	0	0	0	1	4	5	22.4
50yr	0	4	2	2	1	0	0	0	0	1	4	5	22.4
046N-047N 023W-022W 100yr	0	1	0	1	1	0	0	0	0	1	1	2	12.8
50yr	0	1	0	1	1	0	0	0	0	1	1	2	12.8
046N-047N 022W-021W 100yr	0	1	0	1	1	0	0	0	0	1	1	2	8.9
50yr	0	1	0	1	1	0	0	0	0	1	1	2	8.9
046N-047N 021W-020W 100yr	0	1	0	1	1	0	0	0	0	1	1	2	9.6
50yr	0	1	0	1	1	0	0	0	0	1	1	2	9.6
046N-047N 020W-019W 100yr	0	2	0	2	1	0	0	0	0	1	2	3	19.6
50yr	0	2	0	2	1	0	0	0	0	1	2	3	19.6
046N-047N 019W-018W 100yr	0	2	0	2	1	0	0	0	0	1	2	3	20.2
50yr	0	2	0	2	1	0	0	0	0	1	2	3	20.2
046N-047N 018W-017W 100yr	0	3	1	2	2	0	0	0	0	2	3	5	31.2
50yr	0	3	1	2	2	0	0	0	0	2	3	5	31.2
046N-047N 017W-016W 100yr	0	4	2	2	2	0	0	0	0	2	4	6	30.7
50yr	0	4	2	2	2	0	0	0	0	2	4	6	30.7
046N-047N 016W-015W 100yr	0	1	1	0	1	0	0	0	0	1	1	2	37.1
50yr	0	1	1	0	1	0	0	0	0	1	1	2	37.1
046N-047N 015W-014W 100yr	0	2	2	0	0	0	0	0	0	0	2	2	22.7
50yr	0	1	1	0	0	0	0	0	0	0	1	1	24.2
046N-047N 014W-013W 100yr	1	0	0	0	0	0	0	0	0	0	1	1	21.5
50yr	0	0	0	0	0	0	0	0	0	0	0	0	0.0
046N-047N 013W-012W 100yr	1	0	0	0	0	0	0	0	0	0	1	1	21.5
50yr	0	0	0	0	0	0	0	0	0	0	0	0	0.0

047°N to 048°N

Grid Cell	TD	TS	G	S	S1	S2	S3	S4	S5	H	<H	All	Spd
047N-048N 082W-081W 100yr	1	0	0	0	0	0	0	0	0	0	1	1	24.4
50yr	1	0	0	0	0	0	0	0	0	0	1	1	24.4
047N-048N 081W-080W 100yr	1	0	0	0	0	0	0	0	0	0	1	1	23.1
50yr	1	0	0	0	0	0	0	0	0	0	1	1	23.1
047N-048N 080W-079W 100yr	1	1	0	1	0	0	0	0	0	0	2	2	29.5
50yr	1	1	0	1	0	0	0	0	0	0	2	2	29.5
047N-048N 078W-077W 100yr	0	1	1	0	0	0	0	0	0	0	1	1	27.7
50yr	0	0	0	0	0	0	0	0	0	0	0	0	0.0
047N-048N 077W-076W 100yr	0	1	1	0	0	0	0	0	0	0	1	1	27.7
50yr	0	0	0	0	0	0	0	0	0	0	0	0	0.0
047N-048N 075W-074W 100yr	1	0	0	0	0	0	0	0	0	0	1	1	22.0
50yr	0	0	0	0	0	0	0	0	0	0	0	0	0.0

Grid Cell	TD	TS	G	S	S1	S2	S3	S4	S5	H	<H	All	Spd
047N-048N 074W-073W 100yr	1	0	0	0	0	0	0	0	0	0	1	1	23.4
50yr	0	0	0	0	0	0	0	0	0	0	0	0	0.0
047N-048N 073W-072W 100yr	2	1	1	0	0	0	0	0	0	0	3	3	33.3
50yr	0	1	1	0	0	0	0	0	0	0	1	1	47.8
047N-048N 072W-071W 100yr	3	2	1	1	0	0	0	0	0	0	5	5	32.4
50yr	0	2	1	1	0	0	0	0	0	0	2	2	37.4
047N-048N 071W-070W 100yr	4	1	1	0	0	0	0	0	0	0	5	5	29.9
50yr	0	1	1	0	0	0	0	0	0	0	1	1	47.8
047N-048N 070W-069W 100yr	6	2	2	0	0	0	0	0	0	0	8	8	34.3
50yr	1	2	2	0	0	0	0	0	0	0	3	3	45.6
047N-048N 069W-068W 100yr	5	3	1	2	0	0	0	0	0	0	8	8	37.6
50yr	2	3	1	2	0	0	0	0	0	0	5	5	37.8
047N-048N 068W-067W 100yr	3	6	4	2	0	0	0	0	0	0	9	9	40.7
50yr	1	4	2	2	0	0	0	0	0	0	5	5	40.5
047N-048N 067W-066W 100yr	1	2	2	0	0	1	0	0	0	1	3	4	30.0
50yr	0	0	0	0	0	1	0	0	0	1	0	1	46.2
047N-048N 066W-065W 100yr	1	4	3	1	1	0	0	0	0	1	5	6	25.9
50yr	0	1	0	1	1	0	0	0	0	1	1	2	36.5
047N-048N 065W-064W 100yr	0	6	5	1	1	1	0	0	0	2	6	8	33.2
50yr	0	3	2	1	1	1	0	0	0	2	3	5	39.1
047N-048N 064W-063W 100yr	0	9	7	2	0	1	0	0	0	1	9	10	29.2
50yr	0	7	5	2	0	1	0	0	0	1	7	8	30.8
047N-048N 063W-062W 100yr	0	9	6	3	0	0	0	0	0	0	9	9	30.9
50yr	0	8	5	3	0	0	0	0	0	0	8	8	32.2
047N-048N 062W-061W 100yr	0	9	6	3	2	1	0	0	0	3	9	12	29.5
50yr	0	6	4	2	0	0	0	0	0	0	6	6	31.6
047N-048N 061W-060W 100yr	1	13	8	5	2	1	0	0	0	3	14	17	29.4
50yr	0	7	3	4	0	0	0	0	0	0	7	7	30.0
047N-048N 060W-059W 100yr	1	17	8	9	4	0	0	0	0	4	18	22	27.6
50yr	0	9	3	6	2	0	0	0	0	2	9	11	28.8
047N-048N 059W-058W 100yr	0	12	5	7	7	0	0	0	0	7	12	19	28.4
50yr	0	5	1	4	3	0	0	0	0	3	5	8	31.9
047N-048N 058W-057W 100yr	1	9	4	5	3	1	0	0	0	4	10	14	29.1
50yr	0	5	3	2	1	1	0	0	0	2	5	7	31.4
047N-048N 057W-056W 100yr	0	11	5	6	0	1	0	0	0	1	11	12	31.1
50yr	0	7	4	3	0	1	0	0	0	1	7	8	28.4
047N-048N 056W-055W 100yr	0	10	3	7	0	0	0	0	0	0	10	10	33.4
50yr	0	5	1	4	0	0	0	0	0	0	5	5	34.4
047N-048N 055W-054W 100yr	0	11	5	6	2	0	0	0	0	2	11	13	32.7
50yr	0	8	3	5	1	0	0	0	0	1	8	9	33.5
047N-048N 054W-053W 100yr	0	8	5	3	4	0	0	0	0	4	8	12	30.5
50yr	0	3	2	1	2	0	0	0	0	2	3	5	38.8
047N-048N 053W-052W 100yr	0	11	6	5	3	0	0	0	0	3	11	14	29.5
50yr	0	6	3	3	2	0	0	0	0	2	6	8	31.3
047N-048N 052W-051W 100yr	1	10	4	6	2	0	0	0	0	2	11	13	30.4
50yr	0	7	4	3	1	0	0	0	0	1	7	8	30.4
047N-048N 051W-050W 100yr	0	9	4	5	1	2	1	0	0	4	9	13	34.5
50yr	0	4	2	2	1	2	1	0	0	4	4	8	34.7

Grid Cell		TD	TS	G	S	S1	S2	S3	S4	S5	H	<H	All	Spd
047N-048N 050W-049W	100yr	1	9	3	6	7	1	0	0	0	8	10	18	34.5
	50yr	0	4	1	3	5	1	0	0	0	6	4	10	33.9
047N-048N 049W-048W	100yr	1	6	1	5	8	1	0	0	0	9	7	16	37.7
	50yr	0	3	0	3	5	1	0	0	0	6	3	9	39.4
047N-048N 048W-047W	100yr	1	6	3	3	8	0	0	0	0	8	7	15	35.9
	50yr	0	3	1	2	5	0	0	0	0	5	3	8	37.6
047N-048N 047W-046W	100yr	1	7	3	4	5	0	0	0	0	5	8	13	32.7
	50yr	0	3	0	3	3	0	0	0	0	3	3	6	35.5
047N-048N 046W-045W	100yr	0	6	1	5	3	0	0	0	0	3	6	9	30.2
	50yr	0	4	0	4	2	0	0	0	0	2	4	6	31.4
047N-048N 045W-044W	100yr	0	8	1	7	2	0	0	0	0	2	8	10	28.5
	50yr	0	6	0	6	2	0	0	0	0	2	6	8	30.1
047N-048N 044W-043W	100yr	0	7	3	4	2	0	0	0	0	2	7	9	28.6
	50yr	0	6	2	4	2	0	0	0	0	2	6	8	29.5
047N-048N 043W-042W	100yr	0	11	6	5	1	1	0	0	0	2	11	13	32.6
	50yr	0	9	4	5	1	1	0	0	0	2	9	11	31.0
047N-048N 042W-041W	100yr	0	11	6	5	1	1	0	0	0	2	11	13	30.6
	50yr	0	8	4	4	1	1	0	0	0	2	8	10	29.0
047N-048N 041W-040W	100yr	0	8	3	5	2	1	0	0	0	3	8	11	28.9
	50yr	0	6	2	4	2	1	0	0	0	3	6	9	30.1
047N-048N 040W-039W	100yr	0	6	1	5	6	1	0	0	0	7	6	13	35.5
	50yr	0	4	0	4	6	0	0	0	0	6	4	10	38.2
047N-048N 039W-038W	100yr	0	5	2	3	7	2	0	0	0	9	5	14	39.4
	50yr	0	3	1	2	6	1	0	0	0	7	3	10	42.9
047N-048N 038W-037W	100yr	0	3	2	1	8	2	0	0	0	10	3	13	42.6
	50yr	0	2	1	1	7	1	0	0	0	8	2	10	45.6
047N-048N 037W-036W	100yr	0	2	2	0	4	1	0	0	0	5	2	7	34.6
	50yr	0	2	2	0	4	0	0	0	0	4	2	6	34.7
047N-048N 036W-035W	100yr	0	3	1	2	5	0	0	0	0	5	3	8	32.2
	50yr	0	2	1	1	5	0	0	0	0	5	2	7	35.3
047N-048N 035W-034W	100yr	0	5	1	4	5	0	0	0	0	5	5	10	33.5
	50yr	0	4	1	3	5	0	0	0	0	5	4	9	36.2
047N-048N 034W-033W	100yr	0	6	2	4	4	0	0	0	0	4	6	10	34.2
	50yr	0	5	2	3	4	0	0	0	0	4	5	9	37.0
047N-048N 033W-032W	100yr	1	7	2	5	3	0	0	0	0	3	8	11	34.7
	50yr	1	5	2	3	3	0	0	0	0	3	6	9	37.3
047N-048N 032W-031W	100yr	1	8	2	6	3	0	0	0	0	3	9	12	35.5
	50yr	1	6	2	4	3	0	0	0	0	3	7	10	37.9
047N-048N 031W-030W	100yr	1	5	1	4	2	0	0	0	0	2	6	8	32.5
	50yr	1	4	1	3	2	0	0	0	0	2	5	7	33.5
047N-048N 030W-029W	100yr	0	6	2	4	2	0	0	0	0	2	6	8	31.5
	50yr	0	4	1	3	2	0	0	0	0	2	4	6	33.9
047N-048N 029W-028W	100yr	0	8	3	5	2	0	0	0	0	2	8	10	31.4
	50yr	0	6	3	3	1	0	0	0	0	1	6	7	30.0
047N-048N 028W-027W	100yr	0	6	4	2	2	0	0	0	0	2	6	8	30.1
	50yr	0	5	4	1	1	0	0	0	0	1	5	6	27.0
047N-048N 027W-026W	100yr	0	5	3	2	2	0	0	0	0	2	5	7	30.5
	50yr	0	4	3	1	1	0	0	0	0	1	4	5	26.4

Grid Cell	TD	TS	G	S	S1	S2	S3	S4	S5	H	<H	All	Spd
047N-048N 026W-025W 100yr	0	4	1	3	2	0	0	0	0	2	4	6	32.0
50yr	0	3	1	2	1	0	0	0	0	1	3	4	27.7
047N-048N 025W-024W 100yr	0	2	0	2	2	0	0	0	0	2	2	4	31.8
50yr	0	2	0	2	1	0	0	0	0	1	2	3	28.7
047N-048N 024W-023W 100yr	0	3	0	3	1	0	0	0	0	1	3	4	29.4
50yr	0	3	0	3	1	0	0	0	0	1	3	4	29.4
047N-048N 023W-022W 100yr	0	2	0	2	1	0	0	0	0	1	2	3	28.3
50yr	0	2	0	2	1	0	0	0	0	1	2	3	28.3
047N-048N 022W-021W 100yr	0	1	0	1	2	0	0	0	0	2	1	3	20.0
50yr	0	1	0	1	2	0	0	0	0	2	1	3	20.0
047N-048N 021W-020W 100yr	0	1	0	1	2	0	0	0	0	2	1	3	14.2
50yr	0	1	0	1	2	0	0	0	0	2	1	3	14.2
047N-048N 020W-019W 100yr	0	1	0	1	1	0	0	0	0	1	1	2	18.1
50yr	0	1	0	1	1	0	0	0	0	1	1	2	18.1
047N-048N 019W-018W 100yr	0	2	0	2	1	0	0	0	0	1	2	3	19.5
50yr	0	2	0	2	1	0	0	0	0	1	2	3	19.5
047N-048N 018W-017W 100yr	0	1	0	1	2	0	0	0	0	2	1	3	31.9
50yr	0	1	0	1	2	0	0	0	0	2	1	3	31.9
047N-048N 017W-016W 100yr	0	2	1	1	2	0	0	0	0	2	2	4	27.1
50yr	0	2	1	1	2	0	0	0	0	2	2	4	27.1
047N-048N 016W-015W 100yr	0	3	2	1	3	0	0	0	0	3	3	6	27.6
50yr	0	3	2	1	3	0	0	0	0	3	3	6	27.6
047N-048N 015W-014W 100yr	0	4	2	2	3	0	0	0	0	3	4	7	26.2
50yr	0	4	2	2	3	0	0	0	0	3	4	7	26.2
047N-048N 014W-013W 100yr	0	2	1	1	2	0	0	0	0	2	2	4	20.6
50yr	0	2	1	1	2	0	0	0	0	2	2	4	20.6
047N-048N 013W-012W 100yr	1	1	0	1	2	0	0	0	0	2	2	4	20.1
50yr	0	1	0	1	2	0	0	0	0	2	1	3	19.7
047N-048N 012W-011W 100yr	1	0	0	0	1	0	0	0	0	1	1	2	24.6
50yr	0	0	0	0	1	0	0	0	0	1	0	1	27.0
047N-048N 011W-010W 100yr	1	0	0	0	1	0	0	0	0	1	1	2	23.4
50yr	0	0	0	0	1	0	0	0	0	1	0	1	23.9
047N-048N 010W-009W 100yr	0	0	0	0	1	0	0	0	0	1	0	1	20.8
50yr	0	0	0	0	1	0	0	0	0	1	0	1	20.8
047N-048N 009W-008W 100yr	0	0	0	0	1	0	0	0	0	1	0	1	20.8
50yr	0	0	0	0	1	0	0	0	0	1	0	1	20.8
047N-048N 008W-007W 100yr	0	0	0	0	2	0	0	0	0	2	0	2	13.0
50yr	0	0	0	0	2	0	0	0	0	2	0	2	13.0
047N-048N 007W-006W 100yr	0	0	0	0	2	0	0	0	0	2	0	2	9.4
50yr	0	0	0	0	2	0	0	0	0	2	0	2	9.4
047N-048N 006W-005W 100yr	0	0	0	0	1	0	0	0	0	1	0	1	8.4
50yr	0	0	0	0	1	0	0	0	0	1	0	1	8.4
047N-048N 005W-004W 100yr	0	0	0	0	1	0	0	0	0	1	0	1	6.7
50yr	0	0	0	0	1	0	0	0	0	1	0	1	6.7

048°N to 049°N

Grid Cell	TD	TS	G	S	S1	S2	S3	S4	S5	H	<H	All	Spd
048N-049N 081W-080W 100yr	0	1	0	1	0	0	0	0	0	0	1	1	28.2
50yr	0	1	0	1	0	0	0	0	0	0	1	1	28.2
048N-049N 080W-079W 100yr	1	1	0	1	0	0	0	0	0	0	2	2	24.9
50yr	1	1	0	1	0	0	0	0	0	0	2	2	24.9
048N-049N 079W-078W 100yr	1	0	0	0	0	0	0	0	0	0	1	1	32.0
50yr	1	0	0	0	0	0	0	0	0	0	1	1	32.0
048N-049N 078W-077W 100yr	1	0	0	0	0	0	0	0	0	0	1	1	32.0
50yr	1	0	0	0	0	0	0	0	0	0	1	1	32.0
048N-049N 072W-071W 100yr	0	1	0	1	0	0	0	0	0	0	1	1	27.0
50yr	0	1	0	1	0	0	0	0	0	0	1	1	27.0
048N-049N 071W-070W 100yr	0	1	1	0	0	0	0	0	0	0	1	1	47.8
50yr	0	1	1	0	0	0	0	0	0	0	1	1	47.8
048N-049N 070W-069W 100yr	1	2	2	0	0	0	0	0	0	0	3	3	33.6
50yr	0	2	2	0	0	0	0	0	0	0	2	2	37.8
048N-049N 069W-068W 100yr	4	2	2	0	0	0	0	0	0	0	6	6	34.3
50yr	2	2	2	0	0	0	0	0	0	0	4	4	40.4
048N-049N 068W-067W 100yr	6	4	2	2	0	0	0	0	0	0	10	10	36.6
50yr	2	3	1	2	0	0	0	0	0	0	5	5	38.0
048N-049N 067W-066W 100yr	3	4	2	2	0	1	0	0	0	1	7	8	35.9
50yr	0	2	0	2	0	1	0	0	0	1	2	3	37.0
048N-049N 066W-065W 100yr	3	2	1	1	0	1	0	0	0	1	5	6	34.1
50yr	0	1	0	1	0	1	0	0	0	1	1	2	35.9
048N-049N 065W-064W 100yr	2	1	1	0	1	0	0	0	0	1	3	4	30.1
50yr	0	0	0	0	1	0	0	0	0	1	0	1	48.9
048N-049N 064W-063W 100yr	2	4	3	1	2	0	0	0	0	2	6	8	26.9
50yr	0	1	0	1	2	0	0	0	0	2	1	3	32.2
048N-049N 063W-062W 100yr	2	4	4	0	1	0	0	0	0	1	6	7	25.9
50yr	0	2	2	0	1	0	0	0	0	1	2	3	26.2
048N-049N 062W-061W 100yr	2	6	6	0	0	0	0	0	0	0	8	8	26.2
50yr	0	3	3	0	0	0	0	0	0	0	3	3	28.5
048N-049N 061W-060W 100yr	2	6	4	2	1	1	0	0	0	2	8	10	30.2
50yr	0	5	3	2	0	0	0	0	0	0	5	5	30.0
048N-049N 060W-059W 100yr	2	10	4	6	3	1	0	0	0	4	12	16	28.0
50yr	0	7	3	4	0	0	0	0	0	0	7	7	30.1
048N-049N 059W-058W 100yr	2	9	3	6	6	1	0	0	0	7	11	18	27.3
50yr	0	5	1	4	2	0	0	0	0	2	5	7	29.6
048N-049N 058W-057W 100yr	3	10	4	6	3	0	0	0	0	3	13	16	29.6
50yr	0	4	1	3	1	0	0	0	0	1	4	5	34.5
048N-049N 057W-056W 100yr	2	10	5	5	2	1	0	0	0	3	12	15	29.2
50yr	0	6	4	2	1	1	0	0	0	2	6	8	29.4
048N-049N 056W-055W 100yr	1	10	7	3	0	0	0	0	0	0	11	11	30.0
50yr	0	5	4	1	0	0	0	0	0	0	5	5	28.3
048N-049N 055W-054W 100yr	1	13	7	6	0	0	0	0	0	0	14	14	30.8
50yr	0	7	3	4	0	0	0	0	0	0	7	7	30.1

Grid Cell	TD	TS	G	S	S1	S2	S3	S4	S5	H	<H	All	Spd
048N-049N 054W-053W 100yr	0	11	4	7	2	0	0	0	0	2	11	13	31.2
50yr	0	6	2	4	1	0	0	0	0	1	6	7	32.5
048N-049N 053W-052W 100yr	0	9	4	5	4	0	0	0	0	4	9	13	31.8
50yr	0	5	2	3	2	0	0	0	0	2	5	7	32.5
048N-049N 052W-051W 100yr	0	11	5	6	3	0	0	0	0	3	11	14	31.1
50yr	0	8	3	5	2	0	0	0	0	2	8	10	32.1
048N-049N 051W-050W 100yr	0	8	4	4	0	0	0	0	0	0	8	8	31.9
50yr	0	5	2	3	0	0	0	0	0	0	5	5	34.3
048N-049N 050W-049W 100yr	0	9	4	5	1	0	0	0	0	1	9	10	30.2
50yr	0	4	1	3	1	0	0	0	0	1	4	5	28.8
048N-049N 049W-048W 100yr	0	8	2	6	3	1	0	0	0	4	8	12	35.4
50yr	0	3	0	3	2	1	0	0	0	3	3	6	35.0
048N-049N 048W-047W 100yr	0	7	3	4	6	1	0	0	0	7	7	14	35.7
50yr	0	2	1	1	4	1	0	0	0	5	2	7	37.4
048N-049N 047W-046W 100yr	0	8	5	3	8	0	0	0	0	8	8	16	35.2
50yr	0	2	1	1	6	0	0	0	0	6	2	8	36.2
048N-049N 046W-045W 100yr	1	4	1	3	6	0	0	0	0	6	5	11	37.7
50yr	0	1	0	1	3	0	0	0	0	3	1	4	37.3
048N-049N 045W-044W 100yr	1	4	0	4	4	0	0	0	0	4	5	9	34.3
50yr	0	2	0	2	3	0	0	0	0	3	2	5	31.4
048N-049N 044W-043W 100yr	1	5	1	4	4	0	0	0	0	4	6	10	32.9
50yr	0	4	1	3	3	0	0	0	0	3	4	7	32.6
048N-049N 043W-042W 100yr	1	5	1	4	3	0	0	0	0	3	6	9	33.1
50yr	0	4	1	3	2	0	0	0	0	2	4	6	32.8
048N-049N 042W-041W 100yr	1	4	3	1	0	0	0	0	0	0	5	5	28.6
50yr	0	4	3	1	0	0	0	0	0	0	4	4	27.7
048N-049N 041W-040W 100yr	0	5	4	1	0	1	0	0	0	1	5	6	27.0
50yr	0	5	4	1	0	1	0	0	0	1	5	6	27.0
048N-049N 040W-039W 100yr	0	5	3	2	1	1	0	0	0	2	5	7	28.3
50yr	0	4	2	2	1	1	0	0	0	2	4	6	29.1
048N-049N 039W-038W 100yr	0	8	4	4	1	0	0	0	0	1	8	9	31.0
50yr	0	6	3	3	1	0	0	0	0	1	6	7	32.3
048N-049N 038W-037W 100yr	0	10	5	5	4	1	0	0	0	5	10	15	38.3
50yr	0	7	3	4	3	1	0	0	0	4	7	11	41.6
048N-049N 037W-036W 100yr	0	8	5	3	4	2	0	0	0	6	8	14	36.9
50yr	0	5	3	2	3	1	0	0	0	4	5	9	41.7
048N-049N 036W-035W 100yr	0	6	3	3	4	1	0	0	0	5	6	11	33.0
50yr	0	5	3	2	3	0	0	0	0	3	5	8	36.0
048N-049N 035W-034W 100yr	0	5	2	3	3	1	0	0	0	4	5	9	34.5
50yr	0	4	2	2	3	0	0	0	0	3	4	7	35.3
048N-049N 034W-033W 100yr	0	4	2	2	4	1	0	0	0	5	4	9	32.1
50yr	0	3	2	1	4	0	0	0	0	4	3	7	35.5
048N-049N 033W-032W 100yr	0	3	0	3	3	0	0	0	0	3	3	6	40.0
50yr	0	2	0	2	3	0	0	0	0	3	2	5	45.3
048N-049N 032W-031W 100yr	0	6	1	5	4	0	0	0	0	4	6	10	43.8
50yr	0	5	1	4	4	0	0	0	0	4	5	9	46.4
048N-049N 031W-030W 100yr	1	7	2	5	1	0	0	0	0	1	8	9	40.4
50yr	1	6	2	4	1	0	0	0	0	1	7	8	42.9

Grid Cell	TD	TS	G	S	S1	S2	S3	S4	S5	H	<H	All	Spd
048N-049N 030W-029W 100yr	2	7	2	5	1	0	0	0	0	1	9	10	34.8
50yr	2	5	1	4	1	0	0	0	0	1	7	8	37.3
048N-049N 029W-028W 100yr	2	7	2	5	1	0	0	0	0	1	9	10	33.9
50yr	2	6	2	4	1	0	0	0	0	1	8	9	34.7
048N-049N 028W-027W 100yr	0	5	3	2	0	0	0	0	0	0	5	5	29.5
50yr	0	4	2	2	0	0	0	0	0	0	4	4	30.0
048N-049N 027W-026W 100yr	0	6	3	3	0	0	0	0	0	0	6	6	29.5
50yr	0	5	2	3	0	0	0	0	0	0	5	5	30.0
048N-049N 026W-025W 100yr	0	6	3	3	0	0	0	0	0	0	6	6	30.3
50yr	0	4	2	2	0	0	0	0	0	0	4	4	27.9
048N-049N 025W-024W 100yr	0	6	3	3	1	0	0	0	0	1	6	7	32.5
50yr	0	4	2	2	0	0	0	0	0	0	4	4	28.9
048N-049N 024W-023W 100yr	0	8	4	4	1	0	0	0	0	1	8	9	32.7
50yr	0	6	3	3	0	0	0	0	0	0	6	6	30.3
048N-049N 023W-022W 100yr	0	6	2	4	1	0	0	0	0	1	6	7	31.2
50yr	0	5	1	4	0	0	0	0	0	0	5	5	28.9
048N-049N 022W-021W 100yr	0	4	1	3	1	0	0	0	0	1	4	5	31.4
50yr	0	3	0	3	0	0	0	0	0	0	3	3	27.5
048N-049N 021W-020W 100yr	0	3	0	3	0	0	0	0	0	0	3	3	30.6
50yr	0	2	0	2	0	0	0	0	0	0	2	2	25.7
048N-049N 020W-019W 100yr	0	3	0	3	0	0	0	0	0	0	3	3	18.7
50yr	0	3	0	3	0	0	0	0	0	0	3	3	18.7
048N-049N 019W-018W 100yr	0	3	0	3	1	0	0	0	0	1	3	4	26.5
50yr	0	3	0	3	1	0	0	0	0	1	3	4	26.5
048N-049N 018W-017W 100yr	0	3	1	2	1	0	0	0	0	1	3	4	25.3
50yr	0	3	1	2	1	0	0	0	0	1	3	4	25.3
048N-049N 017W-016W 100yr	0	2	1	1	0	0	0	0	0	0	2	2	15.2
50yr	0	2	1	1	0	0	0	0	0	0	2	2	15.2
048N-049N 016W-015W 100yr	1	2	1	1	0	0	0	0	0	0	3	3	20.5
50yr	1	2	1	1	0	0	0	0	0	0	3	3	20.5
048N-049N 015W-014W 100yr	1	4	2	2	1	0	0	0	0	1	5	6	23.4
50yr	1	4	2	2	1	0	0	0	0	1	5	6	23.4
048N-049N 014W-013W 100yr	1	4	2	2	2	0	0	0	0	2	5	7	22.0
50yr	1	4	2	2	2	0	0	0	0	2	5	7	22.0
048N-049N 013W-012W 100yr	0	2	1	1	1	0	0	0	0	1	2	3	18.1
50yr	0	2	1	1	1	0	0	0	0	1	2	3	18.1
048N-049N 012W-011W 100yr	0	1	1	0	2	0	0	0	0	2	1	3	17.7
50yr	0	1	1	0	2	0	0	0	0	2	1	3	17.7
048N-049N 011W-010W 100yr	1	1	1	0	2	0	0	0	0	2	2	4	19.2
50yr	0	1	1	0	2	0	0	0	0	2	1	3	18.0
048N-049N 010W-009W 100yr	1	1	1	0	2	0	0	0	0	2	2	4	18.3
50yr	0	1	1	0	2	0	0	0	0	2	1	3	16.8
048N-049N 009W-008W 100yr	0	1	1	0	2	0	0	0	0	2	1	3	15.6
50yr	0	1	1	0	2	0	0	0	0	2	1	3	15.6
048N-049N 008W-007W 100yr	0	1	1	0	3	0	0	0	0	3	1	4	15.2
50yr	0	1	1	0	3	0	0	0	0	3	1	4	15.2
048N-049N 007W-006W 100yr	0	0	0	0	3	0	0	0	0	3	0	3	11.3
50yr	0	0	0	0	3	0	0	0	0	3	0	3	11.3

Grid Cell	TD	TS	G	S	S1	S2	S3	S4	S5	H	<H	All	Spd
048N-049N 006W-005W 100yr	0	0	0	0	1	0	0	0	0	1	0	1	8.4
50yr	0	0	0	0	1	0	0	0	0	1	0	1	8.4
048N-049N 005W-004W 100yr	0	0	0	0	1	0	0	0	0	1	0	1	6.7
50yr	0	0	0	0	1	0	0	0	0	1	0	1	6.7

049°N to 050°N

Grid Cell	TD	TS	G	S	S1	S2	S3	S4	S5	H	<H	All	Spd
049N-050N 081W-080W 100yr	0	1	0	1	0	0	0	0	0	0	1	1	19.0
50yr	0	1	0	1	0	0	0	0	0	0	1	1	19.0
049N-050N 080W-079W 100yr	0	1	0	1	0	0	0	0	0	0	1	1	19.0
50yr	0	1	0	1	0	0	0	0	0	0	1	1	19.0
049N-050N 078W-077W 100yr	1	0	0	0	0	0	0	0	0	0	1	1	42.3
50yr	1	0	0	0	0	0	0	0	0	0	1	1	42.3
049N-050N 077W-076W 100yr	1	0	0	0	0	0	0	0	0	0	1	1	42.3
50yr	1	0	0	0	0	0	0	0	0	0	1	1	42.3
049N-050N 076W-075W 100yr	1	0	0	0	0	0	0	0	0	0	1	1	42.3
50yr	1	0	0	0	0	0	0	0	0	0	1	1	42.3
049N-050N 070W-069W 100yr	0	2	2	0	0	0	0	0	0	0	2	2	37.8
50yr	0	2	2	0	0	0	0	0	0	0	2	2	37.8
049N-050N 069W-068W 100yr	0	1	1	0	0	0	0	0	0	0	1	1	40.2
50yr	0	1	1	0	0	0	0	0	0	0	1	1	40.2
049N-050N 068W-067W 100yr	2	1	1	0	0	0	0	0	0	0	3	3	25.6
50yr	1	1	1	0	0	0	0	0	0	0	2	2	26.3
049N-050N 067W-066W 100yr	2	3	2	1	0	0	0	0	0	0	5	5	29.3
50yr	1	2	1	1	0	0	0	0	0	0	3	3	30.3
049N-050N 066W-065W 100yr	2	3	1	2	1	0	0	0	0	1	5	6	37.6
50yr	0	2	0	2	1	0	0	0	0	1	2	3	36.6
049N-050N 065W-064W 100yr	1	1	0	1	0	0	0	0	0	0	2	2	43.7
50yr	0	1	0	1	0	0	0	0	0	0	1	1	25.4
049N-050N 064W-063W 100yr	1	4	1	3	1	0	0	0	0	1	5	6	35.3
50yr	0	3	0	3	1	0	0	0	0	1	3	4	29.3
049N-050N 063W-062W 100yr	0	4	2	2	1	0	0	0	0	1	4	5	27.0
50yr	0	2	0	2	1	0	0	0	0	1	2	3	30.8
049N-050N 062W-061W 100yr	0	4	4	0	0	0	0	0	0	0	4	4	22.4
50yr	0	0	0	0	0	0	0	0	0	0	0	0	0.0
049N-050N 061W-060W 100yr	1	6	6	0	0	0	0	0	0	0	7	7	26.1
50yr	0	3	3	0	0	0	0	0	0	0	3	3	29.0
049N-050N 060W-059W 100yr	1	6	4	2	0	0	0	0	0	0	7	7	30.3
50yr	0	4	3	1	0	0	0	0	0	0	4	4	33.8
049N-050N 059W-058W 100yr	2	6	2	4	3	1	0	0	0	4	8	12	30.0
50yr	1	4	1	3	2	0	0	0	0	2	5	7	29.7
049N-050N 058W-057W 100yr	3	9	3	6	3	1	0	0	0	4	12	16	27.9
50yr	1	5	1	4	1	0	0	0	0	1	6	7	30.1
049N-050N 057W-056W 100yr	1	10	3	7	3	0	0	0	0	3	11	14	30.3
50yr	0	4	1	3	2	0	0	0	0	2	4	6	31.8
049N-050N 056W-055W 100yr	1	8	3	5	3	0	0	0	0	3	9	12	30.6
50yr	0	4	2	2	2	0	0	0	0	2	4	6	29.8

Grid Cell	TD	TS	G	S	S1	S2	S3	S4	S5	H	<H	All	Spd
049N-050N 055W-054W 100yr	1	7	6	1	0	0	0	0	0	0	8	8	29.5
50yr	0	4	4	0	0	0	0	0	0	0	4	4	26.9
049N-050N 054W-053W 100yr	1	7	4	3	0	0	0	0	0	0	8	8	27.6
50yr	0	3	3	0	0	0	0	0	0	0	3	3	32.3
049N-050N 053W-052W 100yr	1	11	4	7	0	0	0	0	0	0	12	12	30.8
50yr	0	7	4	3	0	0	0	0	0	0	7	7	30.1
049N-050N 052W-051W 100yr	0	7	2	5	3	0	0	0	0	3	7	10	32.0
50yr	0	5	2	3	2	0	0	0	0	2	5	7	33.2
049N-050N 051W-050W 100yr	0	8	3	5	2	0	0	0	0	2	8	10	34.6
50yr	0	6	3	3	2	0	0	0	0	2	6	8	35.9
049N-050N 050W-049W 100yr	0	9	3	6	1	0	0	0	0	1	9	10	29.2
50yr	0	6	2	4	1	0	0	0	0	1	6	7	31.4
049N-050N 049W-048W 100yr	0	10	5	5	0	0	0	0	0	0	10	10	25.9
50yr	0	5	1	4	0	0	0	0	0	0	5	5	29.2
049N-050N 048W-047W 100yr	0	9	5	4	2	1	0	0	0	3	9	12	27.4
50yr	0	3	1	2	1	1	0	0	0	2	3	5	31.6
049N-050N 047W-046W 100yr	0	6	3	3	3	1	0	0	0	4	6	10	33.9
50yr	0	1	0	1	2	1	0	0	0	3	1	4	41.1
049N-050N 046W-045W 100yr	0	7	4	3	7	0	0	0	0	7	7	14	35.1
50yr	0	1	0	1	5	0	0	0	0	5	1	6	37.1
049N-050N 045W-044W 100yr	0	7	3	4	5	0	0	0	0	5	7	12	37.6
50yr	0	1	0	1	3	0	0	0	0	3	1	4	36.2
049N-050N 044W-043W 100yr	0	6	3	3	4	0	0	0	0	4	6	10	35.3
50yr	0	1	0	1	4	0	0	0	0	4	1	5	32.0
049N-050N 043W-042W 100yr	0	8	3	5	4	0	0	0	0	4	8	12	35.0
50yr	0	4	1	3	3	0	0	0	0	3	4	7	32.4
049N-050N 042W-041W 100yr	1	6	2	4	1	0	0	0	0	1	7	8	33.5
50yr	0	3	1	2	0	0	0	0	0	0	3	3	30.1
049N-050N 041W-040W 100yr	1	6	4	2	1	0	0	0	0	1	7	8	32.9
50yr	0	4	3	1	0	0	0	0	0	0	4	4	27.1
049N-050N 040W-039W 100yr	1	4	3	1	1	1	0	0	0	2	5	7	34.3
50yr	0	2	2	0	0	1	0	0	0	1	2	3	28.1
049N-050N 039W-038W 100yr	1	0	0	0	1	1	0	0	0	2	1	3	33.6
50yr	0	0	0	0	1	1	0	0	0	2	0	2	33.0
049N-050N 038W-037W 100yr	1	3	1	2	2	0	0	0	0	2	4	6	34.2
50yr	0	2	0	2	2	0	0	0	0	2	2	4	36.8
049N-050N 037W-036W 100yr	1	6	3	3	4	0	0	0	0	4	7	11	39.9
50yr	0	4	1	3	4	0	0	0	0	4	4	8	43.2
049N-050N 036W-035W 100yr	0	5	2	3	5	0	0	0	0	5	5	10	38.2
50yr	0	4	1	3	4	0	0	0	0	4	4	8	42.1
049N-050N 035W-034W 100yr	0	4	1	3	2	0	0	0	0	2	4	6	35.2
50yr	0	2	0	2	2	0	0	0	0	2	2	4	40.6
049N-050N 034W-033W 100yr	0	2	2	0	2	1	0	0	0	3	2	5	32.0
50yr	0	1	1	0	2	0	0	0	0	2	1	3	32.5
049N-050N 033W-032W 100yr	0	4	4	0	2	1	0	0	0	3	4	7	29.1
50yr	0	2	2	0	2	0	0	0	0	2	2	4	31.1
049N-050N 032W-031W 100yr	0	4	4	0	4	1	0	0	0	5	4	9	36.3
50yr	0	2	2	0	4	0	0	0	0	4	2	6	41.4

Grid Cell		TD	TS	G	S	S1	S2	S3	S4	S5	H	<H	All	Spd
049N-050N 031W-030W	100yr	0	4	4	0	5	1	0	0	0	6	4	10	42.7
	50yr	0	3	3	0	5	0	0	0	0	5	3	8	44.4
049N-050N 030W-029W	100yr	0	8	5	3	3	1	0	0	0	4	8	12	37.3
	50yr	0	6	3	3	3	0	0	0	0	3	6	9	39.2
049N-050N 029W-028W	100yr	2	4	2	2	3	1	0	0	0	4	6	10	36.2
	50yr	2	3	1	2	3	0	0	0	0	3	5	8	40.7
049N-050N 028W-027W	100yr	2	2	0	2	1	0	0	0	0	1	4	5	37.7
	50yr	2	2	0	2	1	0	0	0	0	1	4	5	37.7
049N-050N 027W-026W	100yr	2	2	0	2	0	0	0	0	0	0	4	4	38.3
	50yr	2	2	0	2	0	0	0	0	0	0	4	4	38.3
049N-050N 026W-025W	100yr	1	2	0	2	0	0	0	0	0	0	3	3	39.3
	50yr	1	2	0	2	0	0	0	0	0	0	3	3	39.3
049N-050N 025W-024W	100yr	0	2	0	2	0	0	0	0	0	0	2	2	41.0
	50yr	0	2	0	2	0	0	0	0	0	0	2	2	41.0
049N-050N 024W-023W	100yr	0	3	2	1	0	0	0	0	0	0	3	3	35.4
	50yr	0	2	2	0	0	0	0	0	0	0	2	2	34.2
049N-050N 023W-022W	100yr	0	3	1	2	0	0	0	0	0	0	3	3	32.4
	50yr	0	2	1	1	0	0	0	0	0	0	2	2	31.0
049N-050N 022W-021W	100yr	0	5	2	3	0	0	0	0	0	0	5	5	33.3
	50yr	0	3	1	2	0	0	0	0	0	0	3	3	32.6
049N-050N 021W-020W	100yr	0	8	2	6	0	0	0	0	0	0	8	8	32.3
	50yr	0	5	1	4	0	0	0	0	0	0	5	5	29.9
049N-050N 020W-019W	100yr	0	7	2	5	0	0	0	0	0	0	7	7	30.8
	50yr	0	5	1	4	0	0	0	0	0	0	5	5	28.4
049N-050N 019W-018W	100yr	0	5	1	4	1	0	0	0	0	1	5	6	33.4
	50yr	0	4	1	3	1	0	0	0	0	1	4	5	32.0
049N-050N 018W-017W	100yr	0	2	1	1	0	0	0	0	0	0	2	2	37.5
	50yr	0	1	1	0	0	0	0	0	0	0	1	1	34.7
049N-050N 017W-016W	100yr	0	2	1	1	0	0	0	0	0	0	2	2	32.5
	50yr	0	1	1	0	0	0	0	0	0	0	1	1	33.7
049N-050N 016W-015W	100yr	1	0	0	0	0	0	0	0	0	0	1	1	7.3
	50yr	1	0	0	0	0	0	0	0	0	0	1	1	7.3
049N-050N 015W-014W	100yr	1	1	1	0	0	0	0	0	0	0	2	2	18.6
	50yr	1	1	1	0	0	0	0	0	0	0	2	2	18.6
049N-050N 014W-013W	100yr	1	2	1	1	1	0	0	0	0	1	3	4	24.3
	50yr	1	2	1	1	1	0	0	0	0	1	3	4	24.3
049N-050N 013W-012W	100yr	0	1	0	1	0	0	0	0	0	0	1	1	14.9
	50yr	0	1	0	1	0	0	0	0	0	0	1	1	14.9
049N-050N 012W-011W	100yr	0	2	1	1	0	0	0	0	0	0	2	2	18.0
	50yr	0	2	1	1	0	0	0	0	0	0	2	2	18.0
049N-050N 011W-010W	100yr	0	1	1	0	0	0	0	0	0	0	1	1	21.0
	50yr	0	1	1	0	0	0	0	0	0	0	1	1	21.0
049N-050N 010W-009W	100yr	0	1	1	0	0	0	0	0	0	0	1	1	19.7
	50yr	0	1	1	0	0	0	0	0	0	0	1	1	19.7
049N-050N 009W-008W	100yr	0	1	1	0	0	0	0	0	0	0	1	1	19.7
	50yr	0	1	1	0	0	0	0	0	0	0	1	1	19.7
049N-050N 008W-007W	100yr	0	1	1	0	0	0	0	0	0	0	1	1	19.7
	50yr	0	1	1	0	0	0	0	0	0	0	1	1	19.7

Grid Cell	TD	TS	G	S	S1	S2	S3	S4	S5	H	<H	All	Spd
049N-050N 007W-006W 100yr	0	0	0	0	1	0	0	0	0	1	0	1	16.9
50yr	0	0	0	0	1	0	0	0	0	1	0	1	16.9
049N-050N 006W-005W 100yr	0	0	0	0	1	0	0	0	0	1	0	1	16.9
50yr	0	0	0	0	1	0	0	0	0	1	0	1	16.9
049N-050N 005W-004W 100yr	0	0	0	0	1	0	0	0	0	1	0	1	16.9
50yr	0	0	0	0	1	0	0	0	0	1	0	1	16.9

Grid Cell	TD	TS	G	S	S1	S2	S3	S4	S5	H	<H	All	Spd

Grid Cell	TD	TS	G	S	S1	S2	S3	S4	S5	H	<H	All	Spd

050°N to 051°N

050N-051N 081W-080W 100yr	0	1	0	1	0	0	0	0	0	0	1	1	14.5
50yr	0	1	0	1	0	0	0	0	0	0	1	1	14.5
050N-051N 080W-079W 100yr	0	1	0	1	0	0	0	0	0	0	1	1	14.5
50yr	0	1	0	1	0	0	0	0	0	0	1	1	14.5
050N-051N 076W-075W 100yr	1	0	0	0	0	0	0	0	0	0	1	1	42.3
50yr	1	0	0	0	0	0	0	0	0	0	1	1	42.3
050N-051N 075W-074W 100yr	1	0	0	0	0	0	0	0	0	0	1	1	42.3
50yr	1	0	0	0	0	0	0	0	0	0	1	1	42.3
050N-051N 074W-073W 100yr	1	0	0	0	0	0	0	0	0	0	1	1	42.3
50yr	1	0	0	0	0	0	0	0	0	0	1	1	42.3
050N-051N 070W-069W 100yr	0	1	1	0	0	0	0	0	0	0	1	1	35.7
50yr	0	1	1	0	0	0	0	0	0	0	1	1	35.7
050N-051N 069W-068W 100yr	0	1	1	0	0	0	0	0	0	0	1	1	35.7
50yr	0	1	1	0	0	0	0	0	0	0	1	1	35.7
050N-051N 068W-067W 100yr	1	1	1	0	0	0	0	0	0	0	2	2	26.3
50yr	1	1	1	0	0	0	0	0	0	0	2	2	26.3
050N-051N 067W-066W 100yr	1	2	1	1	0	0	0	0	0	0	3	3	30.3
50yr	1	2	1	1	0	0	0	0	0	0	3	3	30.3
050N-051N 066W-065W 100yr	2	2	1	1	1	0	0	0	0	1	4	5	32.6
50yr	0	2	1	1	1	0	0	0	0	1	2	3	37.0
050N-051N 065W-064W 100yr	1	2	1	1	0	0	0	0	0	0	3	3	30.9
50yr	0	2	1	1	0	0	0	0	0	0	2	2	32.4
050N-051N 064W-063W 100yr	1	1	0	1	0	0	0	0	0	0	2	2	43.4
50yr	0	1	0	1	0	0	0	0	0	0	1	1	24.8
050N-051N 063W-062W 100yr	1	4	1	3	0	0	0	0	0	0	5	5	38.1
50yr	0	3	0	3	0	0	0	0	0	0	3	3	32.0
050N-051N 062W-061W 100yr	1	5	2	3	0	0	0	0	0	0	6	6	33.4
50yr	0	3	0	3	0	0	0	0	0	0	3	3	31.9
050N-051N 061W-060W 100yr	0	2	1	1	0	0	0	0	0	0	2	2	20.4
50yr	0	1	0	1	0	0	0	0	0	0	1	1	24.3
050N-051N 060W-059W 100yr	0	3	2	1	0	0	0	0	0	0	3	3	31.1
50yr	0	2	1	1	0	0	0	0	0	0	2	2	38.5
050N-051N 059W-058W 100yr	1	3	2	1	0	0	0	0	0	0	4	4	31.6
50yr	1	1	1	0	0	0	0	0	0	0	2	2	30.6

Grid Cell	TD	TS	G	S	S1	S2	S3	S4	S5	H	<H	All	Spd
050N-051N 058W-057W 100yr	2	6	3	3	1	1	0	0	0	2	8	10	31.0
50yr	2	3	1	2	0	0	0	0	0	0	5	5	31.5
050N-051N 057W-056W 100yr	2	6	4	2	2	1	0	0	0	3	8	11	31.8
50yr	1	2	1	1	1	0	0	0	0	1	3	4	28.7
050N-051N 056W-055W 100yr	2	10	5	5	3	1	0	0	0	4	12	16	32.0
50yr	1	4	1	3	2	0	0	0	0	2	5	7	32.5
050N-051N 055W-054W 100yr	0	8	5	3	3	0	0	0	0	3	8	11	28.4
50yr	0	4	2	2	2	0	0	0	0	2	4	6	29.1
050N-051N 054W-053W 100yr	0	6	4	2	3	0	0	0	0	3	6	9	27.3
50yr	0	3	2	1	2	0	0	0	0	2	3	5	27.4
050N-051N 053W-052W 100yr	1	7	4	3	0	0	0	0	0	0	8	8	30.7
50yr	0	3	3	0	0	0	0	0	0	0	3	3	31.7
050N-051N 052W-051W 100yr	1	5	4	1	1	0	0	0	0	1	6	7	32.9
50yr	0	2	2	0	0	0	0	0	0	0	2	2	33.2
050N-051N 051W-050W 100yr	1	4	4	0	3	0	0	0	0	3	5	8	36.4
50yr	0	3	3	0	2	0	0	0	0	2	3	5	38.5
050N-051N 050W-049W 100yr	1	6	5	1	3	0	0	0	0	3	7	10	36.0
50yr	0	5	4	1	3	0	0	0	0	3	5	8	37.5
050N-051N 049W-048W 100yr	0	8	4	4	1	0	0	0	0	1	8	9	32.3
50yr	0	6	3	3	1	0	0	0	0	1	6	7	34.9
050N-051N 048W-047W 100yr	0	8	4	4	0	0	0	0	0	0	8	8	31.5
50yr	0	6	3	3	0	0	0	0	0	0	6	6	32.9
050N-051N 047W-046W 100yr	0	8	4	4	3	1	0	0	0	4	8	12	33.8
50yr	0	5	3	2	2	1	0	0	0	3	5	8	37.9
050N-051N 046W-045W 100yr	0	4	2	2	3	1	0	0	0	4	4	8	32.2
50yr	0	2	1	1	2	1	0	0	0	3	2	5	37.7
050N-051N 045W-044W 100yr	0	6	3	3	2	0	0	0	0	2	6	8	33.5
50yr	0	2	1	1	2	0	0	0	0	2	2	4	38.2
050N-051N 044W-043W 100yr	0	6	3	3	2	0	0	0	0	2	6	8	34.1
50yr	0	2	1	1	2	0	0	0	0	2	2	4	31.5
050N-051N 043W-042W 100yr	0	6	2	4	4	0	0	0	0	4	6	10	37.0
50yr	0	3	1	2	4	0	0	0	0	4	3	7	33.2
050N-051N 042W-041W 100yr	0	7	3	4	2	0	0	0	0	2	7	9	31.8
50yr	0	5	2	3	2	0	0	0	0	2	5	7	30.9
050N-051N 041W-040W 100yr	0	8	3	5	1	0	0	0	0	1	8	9	32.7
50yr	0	6	2	4	1	0	0	0	0	1	6	7	32.2
050N-051N 040W-039W 100yr	0	8	6	2	2	0	0	0	0	2	8	10	34.6
50yr	0	5	4	1	1	0	0	0	0	1	5	6	29.6
050N-051N 039W-038W 100yr	0	6	4	2	2	1	0	0	0	3	6	9	37.3
50yr	0	3	2	1	1	1	0	0	0	2	3	5	33.1
050N-051N 038W-037W 100yr	1	4	3	1	3	1	0	0	0	4	5	9	35.9
50yr	0	2	2	0	2	1	0	0	0	3	2	5	33.5
050N-051N 037W-036W 100yr	1	7	5	2	3	1	0	0	0	4	8	12	33.4
50yr	0	5	3	2	2	1	0	0	0	3	5	8	30.7
050N-051N 036W-035W 100yr	0	7	6	1	2	0	0	0	0	2	7	9	39.2
50yr	0	4	3	1	2	0	0	0	0	2	4	6	40.0
050N-051N 035W-034W 100yr	0	8	5	3	3	0	0	0	0	3	8	11	38.7
50yr	0	5	3	2	3	0	0	0	0	3	5	8	41.4

Grid Cell	TD	TS	G	S	S1	S2	S3	S4	S5	H	<H	All	Spd
050N-051N 034W-033W 100yr	0	6	3	3	4	0	0	0	0	4	6	10	38.6
50yr	0	5	3	2	4	0	0	0	0	4	5	9	40.1
050N-051N 033W-032W 100yr	0	5	3	2	1	0	0	0	0	1	5	6	30.3
50yr	0	5	3	2	1	0	0	0	0	1	5	6	30.3
050N-051N 032W-031W 100yr	0	4	3	1	0	0	0	0	0	0	4	4	28.6
50yr	0	3	2	1	0	0	0	0	0	0	3	3	32.9
050N-051N 031W-030W 100yr	0	3	3	0	3	0	0	0	0	3	3	6	39.1
50yr	0	1	1	0	3	0	0	0	0	3	1	4	42.6
050N-051N 030W-029W 100yr	0	5	4	1	2	0	0	0	0	2	5	7	36.8
50yr	0	3	2	1	2	0	0	0	0	2	3	5	38.1
050N-051N 029W-028W 100yr	0	5	4	1	3	1	0	0	0	4	5	9	40.0
50yr	0	3	2	1	3	0	0	0	0	3	3	6	43.4
050N-051N 028W-027W 100yr	1	4	2	2	4	1	0	0	0	5	5	10	39.6
50yr	1	3	1	2	4	0	0	0	0	4	4	8	39.4
050N-051N 027W-026W 100yr	1	4	2	2	4	0	0	0	0	4	5	9	38.9
50yr	1	3	1	2	3	0	0	0	0	3	4	7	38.5
050N-051N 026W-025W 100yr	1	5	2	3	1	0	0	0	0	1	6	7	36.5
50yr	1	4	1	3	0	0	0	0	0	0	5	5	34.4
050N-051N 025W-024W 100yr	1	6	3	3	1	0	0	0	0	1	7	8	35.8
50yr	1	5	2	3	0	0	0	0	0	0	6	6	33.2
050N-051N 024W-023W 100yr	1	5	3	2	1	0	0	0	0	1	6	7	31.8
50yr	1	5	3	2	0	0	0	0	0	0	6	6	33.5
050N-051N 023W-022W 100yr	1	3	2	1	1	0	0	0	0	1	4	5	28.5
50yr	1	3	2	1	0	0	0	0	0	0	4	4	31.5
050N-051N 022W-021W 100yr	0	3	2	1	1	0	0	0	0	1	3	4	24.3
50yr	0	3	2	1	0	0	0	0	0	0	3	3	28.6
050N-051N 021W-020W 100yr	0	4	2	2	1	0	0	0	0	1	4	5	26.3
50yr	0	3	2	1	0	0	0	0	0	0	3	3	28.8
050N-051N 020W-019W 100yr	0	5	1	4	1	0	0	0	0	1	5	6	30.6
50yr	0	4	1	3	1	0	0	0	0	1	4	5	29.7
050N-051N 019W-018W 100yr	0	5	1	4	1	0	0	0	0	1	5	6	30.3
50yr	0	4	1	3	1	0	0	0	0	1	4	5	29.7
050N-051N 018W-017W 100yr	0	3	1	2	0	0	0	0	0	0	3	3	24.5
50yr	0	3	1	2	0	0	0	0	0	0	3	3	24.5
050N-051N 017W-016W 100yr	0	3	1	2	0	0	0	0	0	0	3	3	31.6
50yr	0	2	1	1	0	0	0	0	0	0	2	2	31.7
050N-051N 016W-015W 100yr	0	3	1	2	0	0	0	0	0	0	3	3	29.0
50yr	0	2	1	1	0	0	0	0	0	0	2	2	32.3
050N-051N 015W-014W 100yr	0	2	1	1	1	0	0	0	0	1	2	3	27.5
50yr	0	2	1	1	0	0	0	0	0	0	2	2	32.3
050N-051N 014W-013W 100yr	0	1	1	0	2	0	0	0	0	2	1	3	31.6
50yr	0	1	1	0	1	0	0	0	0	1	1	2	38.4
050N-051N 013W-012W 100yr	0	2	1	1	2	0	0	0	0	2	2	4	29.1
50yr	0	2	1	1	1	0	0	0	0	1	2	3	30.6
050N-051N 012W-011W 100yr	0	2	1	1	1	0	0	0	0	1	2	3	23.2
50yr	0	2	1	1	0	0	0	0	0	0	2	2	22.5
050N-051N 011W-010W 100yr	0	3	2	1	1	0	0	0	0	1	3	4	20.8
50yr	0	3	2	1	0	0	0	0	0	0	3	3	19.5

Grid Cell	TD	TS	G	S	S1	S2	S3	S4	S5	H	<H	All	Spd
050N-051N 010W-009W 100yr	0	2	2	0	0	0	0	0	0	0	2	2	23.8
50yr	0	2	2	0	0	0	0	0	0	0	2	2	23.8
050N-051N 009W-008W 100yr	0	1	1	0	0	0	0	0	0	0	1	1	20.3
50yr	0	1	1	0	0	0	0	0	0	0	1	1	20.3
050N-051N 008W-007W 100yr	0	1	1	0	0	0	0	0	0	0	1	1	19.5
50yr	0	1	1	0	0	0	0	0	0	0	1	1	19.5
050N-051N 007W-006W 100yr	0	1	1	0	0	0	0	0	0	0	1	1	18.7
50yr	0	1	1	0	0	0	0	0	0	0	1	1	18.7

051°N to 052°N

051N-052N 080W-079W 100yr	0	1	1	0	0	0	0	0	0	0	1	1	10.9
50yr	0	1	1	0	0	0	0	0	0	0	1	1	10.9
051N-052N 074W-073W 100yr	1	0	0	0	0	0	0	0	0	0	1	1	42.3
50yr	1	0	0	0	0	0	0	0	0	0	1	1	42.3
051N-052N 073W-072W 100yr	1	0	0	0	0	0	0	0	0	0	1	1	41.4
50yr	1	0	0	0	0	0	0	0	0	0	1	1	41.4
051N-052N 072W-071W 100yr	1	0	0	0	0	0	0	0	0	0	1	1	40.4
50yr	1	0	0	0	0	0	0	0	0	0	1	1	40.4
051N-052N 070W-069W 100yr	1	0	0	0	0	0	0	0	0	0	1	1	36.0
50yr	1	0	0	0	0	0	0	0	0	0	1	1	36.0
051N-052N 069W-068W 100yr	1	0	0	0	0	0	0	0	0	0	1	1	36.0
50yr	1	0	0	0	0	0	0	0	0	0	1	1	36.0
051N-052N 066W-065W 100yr	0	1	1	0	1	0	0	0	0	1	1	2	36.2
50yr	0	1	1	0	1	0	0	0	0	1	1	2	36.2
051N-052N 065W-064W 100yr	1	2	1	1	0	0	0	0	0	0	3	3	30.9
50yr	0	2	1	1	0	0	0	0	0	0	2	2	32.4
051N-052N 064W-063W 100yr	1	2	1	1	0	0	0	0	0	0	3	3	29.0
50yr	0	2	1	1	0	0	0	0	0	0	2	2	29.6
051N-052N 063W-062W 100yr	0	1	1	0	0	0	0	0	0	0	1	1	15.9
50yr	0	1	1	0	0	0	0	0	0	0	1	1	15.9
051N-052N 062W-061W 100yr	0	4	2	2	0	0	0	0	0	0	4	4	29.9
50yr	0	3	1	2	0	0	0	0	0	0	3	3	29.0
051N-052N 061W-060W 100yr	0	3	0	3	0	0	0	0	0	0	3	3	31.9
50yr	0	3	0	3	0	0	0	0	0	0	3	3	31.9
051N-052N 060W-059W 100yr	0	3	1	2	0	0	0	0	0	0	3	3	29.6
50yr	0	2	0	2	0	0	0	0	0	0	2	2	36.2
051N-052N 059W-058W 100yr	0	2	1	1	0	0	0	0	0	0	2	2	26.4
50yr	0	2	1	1	0	0	0	0	0	0	2	2	26.4
051N-052N 058W-057W 100yr	1	4	1	3	0	0	0	0	0	0	5	5	25.7
50yr	1	3	1	2	0	0	0	0	0	0	4	4	28.7
051N-052N 057W-056W 100yr	2	5	1	4	0	0	0	0	0	0	7	7	27.8
50yr	2	3	1	2	0	0	0	0	0	0	5	5	29.4
051N-052N 056W-055W 100yr	2	7	2	5	0	1	0	0	0	1	9	10	35.1
50yr	1	3	0	3	0	0	0	0	0	0	4	4	33.9
051N-052N 055W-054W 100yr	1	9	4	5	0	1	0	0	0	1	10	11	29.4
50yr	0	4	1	3	0	0	0	0	0	0	4	4	31.5

Grid Cell	TD	TS	G	S	S1	S2	S3	S4	S5	H	<H	All	Spd
051N-052N 054W-053W 100yr	1	8	5	3	3	0	0	0	0	3	9	12	28.2
50yr	0	4	2	2	2	0	0	0	0	2	4	6	28.4
051N-052N 053W-052W 100yr	0	9	6	3	3	0	0	0	0	3	9	12	26.2
50yr	0	4	3	1	2	0	0	0	0	2	4	6	26.0
051N-052N 052W-051W 100yr	0	6	3	3	1	0	0	0	0	1	6	7	25.4
50yr	0	2	1	1	1	0	0	0	0	1	2	3	23.4
051N-052N 051W-050W 100yr	0	7	6	1	2	0	0	0	0	2	7	9	23.3
50yr	0	3	2	1	2	0	0	0	0	2	3	5	26.6
051N-052N 050W-049W 100yr	1	4	4	0	2	0	0	0	0	2	5	7	32.1
50yr	0	2	2	0	2	0	0	0	0	2	2	4	36.2
051N-052N 049W-048W 100yr	1	4	3	1	3	0	0	0	0	3	5	8	32.9
50yr	0	3	2	1	3	0	0	0	0	3	3	6	33.5
051N-052N 048W-047W 100yr	1	6	4	2	0	0	0	0	0	0	7	7	31.2
50yr	0	5	3	2	0	0	0	0	0	0	5	5	31.3
051N-052N 047W-046W 100yr	2	7	4	3	1	0	0	0	0	1	9	10	29.7
50yr	1	4	2	2	1	0	0	0	0	1	5	6	30.1
051N-052N 046W-045W 100yr	1	5	3	2	4	0	0	0	0	4	6	10	29.6
50yr	1	3	2	1	3	0	0	0	0	3	4	7	31.4
051N-052N 045W-044W 100yr	1	4	2	2	3	0	0	0	0	3	5	8	34.7
50yr	1	2	2	0	2	0	0	0	0	2	3	5	39.5
051N-052N 044W-043W 100yr	1	5	4	1	1	0	0	0	0	1	6	7	34.4
50yr	1	2	2	0	1	0	0	0	0	1	3	4	40.5
051N-052N 043W-042W 100yr	1	7	4	3	2	0	0	0	0	2	8	10	33.5
50yr	1	2	2	0	2	0	0	0	0	2	3	5	33.2
051N-052N 042W-041W 100yr	1	6	3	3	3	0	0	0	0	3	7	10	34.1
50yr	1	3	2	1	3	0	0	0	0	3	4	7	31.7
051N-052N 041W-040W 100yr	1	7	2	5	2	0	0	0	0	2	8	10	33.9
50yr	1	4	1	3	2	0	0	0	0	2	5	7	32.8
051N-052N 040W-039W 100yr	1	7	4	3	0	0	0	0	0	0	8	8	32.9
50yr	1	5	3	2	0	0	0	0	0	0	6	6	33.4
051N-052N 039W-038W 100yr	0	9	6	3	0	0	0	0	0	0	9	9	33.6
50yr	0	6	4	2	0	0	0	0	0	0	6	6	31.9
051N-052N 038W-037W 100yr	0	8	6	2	1	0	0	0	0	1	8	9	32.9
50yr	0	6	4	2	1	0	0	0	0	1	6	7	29.9
051N-052N 037W-036W 100yr	0	11	6	5	2	1	0	0	0	3	11	14	33.8
50yr	0	8	4	4	2	1	0	0	0	3	8	11	31.1
051N-052N 036W-035W 100yr	0	8	5	3	2	1	0	0	0	3	8	11	36.1
50yr	0	5	3	2	2	1	0	0	0	3	5	8	34.8
051N-052N 035W-034W 100yr	0	6	4	2	1	0	0	0	0	1	6	7	37.9
50yr	0	3	2	1	1	0	0	0	0	1	3	4	36.2
051N-052N 034W-033W 100yr	0	4	3	1	4	0	0	0	0	4	4	8	44.7
50yr	0	2	2	0	4	0	0	0	0	4	2	6	47.1
051N-052N 033W-032W 100yr	0	6	3	3	4	0	0	0	0	4	6	10	41.4
50yr	0	4	2	2	4	0	0	0	0	4	4	8	42.4
051N-052N 032W-031W 100yr	0	6	3	3	1	0	0	0	0	1	6	7	35.5
50yr	0	5	2	3	1	0	0	0	0	1	5	6	33.1
051N-052N 031W-030W 100yr	0	6	4	2	1	0	0	0	0	1	6	7	38.0
50yr	0	4	2	2	1	0	0	0	0	1	4	5	41.2

Grid Cell		TD	TS	G	S	S1	S2	S3	S4	S5	H	<H	All	Spd
051N-052N 030W-029W	100yr	0	8	5	3	1	0	0	0	0	1	8	9	34.1
	50yr	0	5	2	3	1	0	0	0	0	1	5	6	39.0
051N-052N 029W-028W	100yr	0	4	3	1	0	0	0	0	0	0	4	4	40.1
	50yr	0	4	3	1	0	0	0	0	0	0	4	4	40.1
051N-052N 028W-027W	100yr	0	4	3	1	1	0	0	0	0	1	4	5	40.6
	50yr	0	4	3	1	1	0	0	0	0	1	4	5	40.6
051N-052N 027W-026W	100yr	0	3	2	1	4	0	0	0	0	4	3	7	41.2
	50yr	0	3	2	1	4	0	0	0	0	4	3	7	41.2
051N-052N 026W-025W	100yr	0	4	3	1	4	0	0	0	0	4	4	8	44.5
	50yr	0	3	2	1	4	0	0	0	0	4	3	7	41.5
051N-052N 025W-024W	100yr	0	5	3	2	3	0	0	0	0	3	5	8	44.6
	50yr	0	4	2	2	3	0	0	0	0	3	4	7	41.6
051N-052N 024W-023W	100yr	0	5	2	3	2	0	0	0	0	2	5	7	46.5
	50yr	0	4	1	3	2	0	0	0	0	2	4	6	43.2
051N-052N 023W-022W	100yr	1	4	2	2	0	0	0	0	0	0	5	5	44.7
	50yr	1	3	1	2	0	0	0	0	0	0	4	4	39.4
051N-052N 022W-021W	100yr	1	3	2	1	0	0	0	0	0	0	4	4	42.7
	50yr	1	2	1	1	0	0	0	0	0	0	3	3	34.9
051N-052N 021W-020W	100yr	1	4	3	1	2	0	0	0	0	2	5	7	38.3
	50yr	1	3	2	1	1	0	0	0	0	1	4	5	38.4
051N-052N 020W-019W	100yr	1	4	3	1	2	0	0	0	0	2	5	7	37.2
	50yr	1	3	2	1	1	0	0	0	0	1	4	5	37.2
051N-052N 019W-018W	100yr	1	5	2	3	1	0	0	0	0	1	6	7	26.5
	50yr	1	4	2	2	0	0	0	0	0	0	5	5	29.1
051N-052N 018W-017W	100yr	0	4	1	3	1	0	0	0	0	1	4	5	20.4
	50yr	0	3	1	2	0	0	0	0	0	0	3	3	20.3
051N-052N 017W-016W	100yr	0	3	1	2	1	0	0	0	0	1	3	4	21.1
	50yr	0	2	1	1	0	0	0	0	0	0	2	2	21.1
051N-052N 016W-015W	100yr	0	3	1	2	1	0	0	0	0	1	3	4	19.4
	50yr	0	2	1	1	0	0	0	0	0	0	2	2	21.9
051N-052N 015W-014W	100yr	0	2	0	2	1	0	0	0	0	1	2	3	24.1
	50yr	0	1	0	1	0	0	0	0	0	0	1	1	31.9
051N-052N 014W-013W	100yr	0	2	1	1	1	0	0	0	0	1	2	3	18.8
	50yr	0	2	1	1	0	0	0	0	0	0	2	2	19.3
051N-052N 013W-012W	100yr	0	2	1	1	1	0	0	0	0	1	2	3	29.3
	50yr	0	2	1	1	1	0	0	0	0	1	2	3	29.3
051N-052N 012W-011W	100yr	0	3	1	2	1	0	0	0	0	1	3	4	26.1
	50yr	0	3	1	2	1	0	0	0	0	1	3	4	26.1
051N-052N 011W-010W	100yr	0	2	1	1	0	0	0	0	0	0	2	2	15.4
	50yr	0	2	1	1	0	0	0	0	0	0	2	2	15.4
051N-052N 010W-009W	100yr	0	2	1	1	0	0	0	0	0	0	2	2	20.3
	50yr	0	2	1	1	0	0	0	0	0	0	2	2	20.3
051N-052N 009W-008W	100yr	0	1	1	0	0	0	0	0	0	0	1	1	27.3
	50yr	0	1	1	0	0	0	0	0	0	0	1	1	27.3
051N-052N 008W-007W	100yr	0	1	0	1	0	0	0	0	0	0	1	1	23.2
	50yr	0	1	0	1	0	0	0	0	0	0	1	1	23.2
051N-052N 007W-006W	100yr	0	2	1	1	0	0	0	0	0	0	2	2	18.9
	50yr	0	2	1	1	0	0	0	0	0	0	2	2	18.9

Grid Cell		TD	TS	G	S	S1	S2	S3	S4	S5	H	<H	All	Spd
051N-052N 006W-005W	100yr	0	2	1	1	0	0	0	0	0	0	2	2	18.9
	50yr	0	2	1	1	0	0	0	0	0	0	2	2	18.9
051N-052N 005W-004W	100yr	0	1	1	0	0	0	0	0	0	0	1	1	18.7
	50yr	0	1	1	0	0	0	0	0	0	0	1	1	18.7

052°N to 053°N

Grid Cell		TD	TS	G	S	S1	S2	S3	S4	S5	H	<H	All	Spd
052N-053N 080W-079W	100yr	0	1	1	0	0	0	0	0	0	0	1	1	12.6
	50yr	0	1	1	0	0	0	0	0	0	0	1	1	12.6
052N-053N 072W-071W	100yr	1	0	0	0	0	0	0	0	0	0	1	1	40.4
	50yr	1	0	0	0	0	0	0	0	0	0	1	1	40.4
052N-053N 071W-070W	100yr	1	0	0	0	0	0	0	0	0	0	1	1	40.4
	50yr	1	0	0	0	0	0	0	0	0	0	1	1	40.4
052N-053N 070W-069W	100yr	2	0	0	0	0	0	0	0	0	0	2	2	38.2
	50yr	2	0	0	0	0	0	0	0	0	0	2	2	38.2
052N-053N 069W-068W	100yr	2	0	0	0	0	0	0	0	0	0	2	2	38.2
	50yr	2	0	0	0	0	0	0	0	0	0	2	2	38.2
052N-053N 066W-065W	100yr	0	0	0	0	1	0	0	0	0	1	0	1	45.5
	50yr	0	0	0	0	1	0	0	0	0	1	0	1	45.5
052N-053N 065W-064W	100yr	0	0	0	0	1	0	0	0	0	1	0	1	45.5
	50yr	0	0	0	0	1	0	0	0	0	1	0	1	45.5
052N-053N 064W-063W	100yr	1	1	0	1	0	0	0	0	0	0	2	2	32.9
	50yr	0	1	0	1	0	0	0	0	0	0	1	1	37.9
052N-053N 063W-062W	100yr	1	2	1	1	0	0	0	0	0	0	3	3	27.8
	50yr	0	2	1	1	0	0	0	0	0	0	2	2	26.9
052N-053N 062W-061W	100yr	1	1	1	0	0	0	0	0	0	0	2	2	23.5
	50yr	0	1	1	0	0	0	0	0	0	0	1	1	15.9
052N-053N 061W-060W	100yr	0	3	1	2	0	0	0	0	0	0	3	3	23.5
	50yr	0	3	1	2	0	0	0	0	0	0	3	3	23.5
052N-053N 060W-059W	100yr	0	3	1	2	0	0	0	0	0	0	3	3	28.8
	50yr	0	3	1	2	0	0	0	0	0	0	3	3	28.8
052N-053N 058W-057W	100yr	1	0	0	0	0	0	0	0	0	0	1	1	22.5
	50yr	1	0	0	0	0	0	0	0	0	0	1	1	22.5
052N-053N 057W-056W	100yr	1	3	1	2	0	0	0	0	0	0	4	4	26.2
	50yr	1	2	1	1	0	0	0	0	0	0	3	3	30.3
052N-053N 056W-055W	100yr	0	2	0	2	0	0	0	0	0	0	2	2	23.1
	50yr	0	0	0	0	0	0	0	0	0	0	0	0	0.0
052N-053N 055W-054W	100yr	0	3	1	2	0	1	0	0	0	1	3	4	31.1
	50yr	0	1	0	1	0	0	0	0	0	0	1	1	23.7
052N-053N 054W-053W	100yr	1	4	1	3	0	1	0	0	0	1	5	6	32.3
	50yr	0	2	0	2	0	0	0	0	0	0	2	2	30.7
052N-053N 053W-052W	100yr	1	8	4	4	1	1	0	0	0	2	9	11	29.5
	50yr	0	4	2	2	1	0	0	0	0	1	4	5	30.8
052N-053N 052W-051W	100yr	1	11	5	6	0	0	0	0	0	0	12	12	27.5
	50yr	0	4	2	2	0	0	0	0	0	0	4	4	27.6
052N-053N 051W-050W	100yr	0	9	5	4	1	0	0	0	0	1	9	10	24.1
	50yr	0	4	1	3	1	0	0	0	0	1	4	5	23.4

Grid Cell	TD	TS	G	S	S1	S2	S3	S4	S5	H	<H	All	Spd
052N-053N 050W-049W 100yr	0	4	2	2	1	0	0	0	0	1	4	5	21.8
50yr	0	2	0	2	1	0	0	0	0	1	2	3	24.4
052N-053N 049W-048W 100yr	0	5	3	2	3	0	0	0	0	3	5	8	25.6
50yr	0	3	1	2	3	0	0	0	0	3	3	6	28.0
052N-053N 048W-047W 100yr	1	6	2	4	2	0	0	0	0	2	7	9	29.8
50yr	0	5	1	4	2	0	0	0	0	2	5	7	29.6
052N-053N 047W-046W 100yr	1	6	3	3	1	0	0	0	0	1	7	8	27.6
50yr	0	5	2	3	1	0	0	0	0	1	5	6	26.5
052N-053N 046W-045W 100yr	0	5	3	2	2	0	0	0	0	2	5	7	26.3
50yr	0	4	2	2	2	0	0	0	0	2	4	6	27.2
052N-053N 045W-044W 100yr	0	4	2	2	3	0	0	0	0	3	4	7	24.6
50yr	0	3	1	2	2	0	0	0	0	2	3	5	24.7
052N-053N 044W-043W 100yr	0	4	1	3	3	0	0	0	0	3	4	7	27.1
50yr	0	2	0	2	2	0	0	0	0	2	2	4	28.7
052N-053N 043W-042W 100yr	0	5	3	2	2	0	0	0	0	2	5	7	29.2
50yr	0	1	0	1	2	0	0	0	0	2	1	3	32.7
052N-053N 042W-041W 100yr	0	6	3	3	1	0	0	0	0	1	6	7	28.2
50yr	0	1	0	1	1	0	0	0	0	1	1	2	21.0
052N-053N 041W-040W 100yr	0	5	1	4	0	0	0	0	0	0	5	5	37.2
50yr	0	2	0	2	0	0	0	0	0	0	2	2	28.2
052N-053N 040W-039W 100yr	0	4	0	4	0	0	0	0	0	0	4	4	36.1
50yr	0	3	0	3	0	0	0	0	0	0	3	3	33.1
052N-053N 039W-038W 100yr	0	8	2	6	0	0	0	0	0	0	8	8	32.2
50yr	0	6	2	4	0	0	0	0	0	0	6	6	31.7
052N-053N 038W-037W 100yr	0	7	2	5	0	0	0	0	0	0	7	7	26.8
50yr	0	5	2	3	0	0	0	0	0	0	5	5	24.2
052N-053N 037W-036W 100yr	0	5	1	4	0	0	0	0	0	0	5	5	26.7
50yr	0	5	1	4	0	0	0	0	0	0	5	5	26.7
052N-053N 036W-035W 100yr	0	3	1	2	0	1	0	0	0	1	3	4	33.3
50yr	0	2	0	2	0	1	0	0	0	1	2	3	28.5
052N-053N 035W-034W 100yr	0	3	1	2	0	1	0	0	0	1	3	4	41.7
50yr	0	1	0	1	0	1	0	0	0	1	1	2	38.0
052N-053N 034W-033W 100yr	0	3	1	2	0	1	0	0	0	1	3	4	41.6
50yr	0	1	0	1	0	1	0	0	0	1	1	2	37.9
052N-053N 033W-032W 100yr	0	4	1	3	3	0	0	0	0	3	4	7	46.8
50yr	0	1	0	1	3	0	0	0	0	3	1	4	53.7
052N-053N 032W-031W 100yr	0	3	0	3	3	0	0	0	0	3	3	6	46.9
50yr	0	2	0	2	3	0	0	0	0	3	2	5	52.3
052N-053N 031W-030W 100yr	0	4	1	3	0	0	0	0	0	0	4	4	46.8
50yr	0	3	0	3	0	0	0	0	0	0	3	3	45.9
052N-053N 030W-029W 100yr	0	4	2	2	1	0	0	0	0	1	4	5	36.2
50yr	0	2	0	2	1	0	0	0	0	1	2	3	42.2
052N-053N 029W-028W 100yr	0	2	1	1	0	0	0	0	0	0	2	2	17.7
50yr	0	1	0	1	0	0	0	0	0	0	1	1	31.4
052N-053N 028W-027W 100yr	0	3	2	1	0	0	0	0	0	0	3	3	30.5
50yr	0	2	1	1	0	0	0	0	0	0	2	2	44.3
052N-053N 027W-026W 100yr	0	1	0	1	0	0	0	0	0	0	1	1	31.1
50yr	0	1	0	1	0	0	0	0	0	0	1	1	31.1

Grid Cell	TD	TS	G	S	S1	S2	S3	S4	S5	H	<H	All	Spd
052N-053N 026W-025W 100yr	0	1	1	0	1	0	0	0	0	1	1	2	28.1
50yr	0	1	1	0	1	0	0	0	0	1	1	2	28.1
052N-053N 025W-024W 100yr	0	1	1	0	2	0	0	0	0	2	1	3	36.7
50yr	0	1	1	0	2	0	0	0	0	2	1	3	36.7
052N-053N 024W-023W 100yr	0	0	0	0	3	0	0	0	0	3	0	3	50.8
50yr	0	0	0	0	3	0	0	0	0	3	0	3	50.8
052N-053N 023W-022W 100yr	0	1	0	1	2	0	0	0	0	2	1	3	44.3
50yr	0	1	0	1	2	0	0	0	0	2	1	3	44.3
052N-053N 022W-021W 100yr	0	1	0	1	1	0	0	0	0	1	1	2	46.8
50yr	0	1	0	1	1	0	0	0	0	1	1	2	46.8
052N-053N 021W-020W 100yr	0	1	1	0	2	0	0	0	0	2	1	3	55.8
50yr	0	0	0	0	2	0	0	0	0	2	0	2	50.7
052N-053N 020W-019W 100yr	0	1	1	0	1	0	0	0	0	1	1	2	59.2
50yr	0	0	0	0	1	0	0	0	0	1	0	1	52.3
052N-053N 019W-018W 100yr	1	0	0	0	1	0	0	0	0	1	1	2	41.4
50yr	1	0	0	0	1	0	0	0	0	1	1	2	41.4
052N-053N 018W-017W 100yr	1	1	0	1	0	0	0	0	0	0	2	2	20.2
50yr	1	1	0	1	0	0	0	0	0	0	2	2	20.2
052N-053N 017W-016W 100yr	1	4	1	3	0	0	0	0	0	0	5	5	21.9
50yr	1	3	1	2	0	0	0	0	0	0	4	4	19.7
052N-053N 016W-015W 100yr	0	4	1	3	0	0	0	0	0	0	4	4	19.4
50yr	0	3	1	2	0	0	0	0	0	0	3	3	15.6
052N-053N 015W-014W 100yr	0	4	1	3	0	0	0	0	0	0	4	4	20.8
50yr	0	2	1	1	0	0	0	0	0	0	2	2	16.8
052N-053N 014W-013W 100yr	0	1	1	0	0	0	0	0	0	0	1	1	6.3
50yr	0	1	1	0	0	0	0	0	0	0	1	1	6.3
052N-053N 013W-012W 100yr	0	1	0	1	0	0	0	0	0	0	1	1	33.4
50yr	0	1	0	1	0	0	0	0	0	0	1	1	33.4
052N-053N 012W-011W 100yr	0	1	0	1	1	0	0	0	0	1	1	2	37.8
50yr	0	1	0	1	1	0	0	0	0	1	1	2	37.8
052N-053N 011W-010W 100yr	0	2	0	2	1	0	0	0	0	1	2	3	40.0
50yr	0	2	0	2	1	0	0	0	0	1	2	3	40.0
052N-053N 010W-009W 100yr	0	2	0	2	0	0	0	0	0	0	2	2	28.0
50yr	0	2	0	2	0	0	0	0	0	0	2	2	28.0
052N-053N 006W-005W 100yr	0	1	0	1	0	0	0	0	0	0	1	1	19.1
50yr	0	1	0	1	0	0	0	0	0	0	1	1	19.1
052N-053N 005W-004W 100yr	0	1	0	1	0	0	0	0	0	0	1	1	17.6
50yr	0	1	0	1	0	0	0	0	0	0	1	1	17.6
052N-053N 004W-003W 100yr	0	1	1	0	0	0	0	0	0	0	1	1	16.2
50yr	0	1	1	0	0	0	0	0	0	0	1	1	16.2
052N-053N 003W-002W 100yr	0	1	1	0	0	0	0	0	0	0	1	1	15.1
50yr	0	1	1	0	0	0	0	0	0	0	1	1	15.1
052N-053N 002W-001W 100yr	0	1	1	0	0	0	0	0	0	0	1	1	15.1
50yr	0	1	1	0	0	0	0	0	0	0	1	1	15.1

053°N to 054°N

Grid Cell		TD	TS	G	S	S1	S2	S3	S4	S5	H	<H	All	Spd
053N-054N 080W-079W	100yr	0	1	1	0	0	0	0	0	0	0	1	1	13.4
	50yr	0	1	1	0	0	0	0	0	0	0	1	1	13.4
053N-054N 079W-078W	100yr	0	1	1	0	0	0	0	0	0	0	1	1	16.6
	50yr	0	1	1	0	0	0	0	0	0	0	1	1	16.6
053N-054N 070W-069W	100yr	1	0	0	0	0	0	0	0	0	0	1	1	36.0
	50yr	1	0	0	0	0	0	0	0	0	0	1	1	36.0
053N-054N 069W-068W	100yr	2	0	0	0	0	0	0	0	0	0	2	2	38.2
	50yr	2	0	0	0	0	0	0	0	0	0	2	2	38.2
053N-054N 068W-067W	100yr	1	0	0	0	0	0	0	0	0	0	1	1	36.2
	50yr	1	0	0	0	0	0	0	0	0	0	1	1	36.2
053N-054N 066W-065W	100yr	0	0	0	0	1	0	0	0	0	1	0	1	45.5
	50yr	0	0	0	0	1	0	0	0	0	1	0	1	45.5
053N-054N 065W-064W	100yr	0	0	0	0	1	0	0	0	0	1	0	1	45.5
	50yr	0	0	0	0	1	0	0	0	0	1	0	1	45.5
053N-054N 063W-062W	100yr	0	1	0	1	0	0	0	0	0	0	1	1	38.1
	50yr	0	1	0	1	0	0	0	0	0	0	1	1	38.1
053N-054N 062W-061W	100yr	1	1	1	0	0	0	0	0	0	0	2	2	34.7
	50yr	0	1	1	0	0	0	0	0	0	0	1	1	38.3
053N-054N 061W-060W	100yr	1	1	0	1	0	0	0	0	0	0	2	2	26.0
	50yr	0	1	0	1	0	0	0	0	0	0	1	1	20.8
053N-054N 060W-059W	100yr	1	4	1	3	0	0	0	0	0	0	5	5	27.7
	50yr	0	4	1	3	0	0	0	0	0	0	4	4	26.8
053N-054N 059W-058W	100yr	1	2	1	1	0	0	0	0	0	0	3	3	23.6
	50yr	0	2	1	1	0	0	0	0	0	0	2	2	19.8
053N-054N 058W-057W	100yr	0	1	1	0	0	0	0	0	0	0	1	1	22.6
	50yr	0	1	1	0	0	0	0	0	0	0	1	1	22.6
053N-054N 057W-056W	100yr	0	1	1	0	0	0	0	0	0	0	1	1	22.6
	50yr	0	1	1	0	0	0	0	0	0	0	1	1	22.6
053N-054N 056W-055W	100yr	0	1	0	1	0	0	0	0	0	0	1	1	11.2
	50yr	0	0	0	0	0	0	0	0	0	0	0	0	0.0
053N-054N 055W-054W	100yr	0	1	0	1	0	0	0	0	0	0	1	1	11.5
	50yr	0	0	0	0	0	0	0	0	0	0	0	0	0.0
053N-054N 054W-053W	100yr	0	3	2	1	0	0	0	0	0	0	3	3	26.5
	50yr	0	0	0	0	0	0	0	0	0	0	0	0	0.0
053N-054N 053W-052W	100yr	0	3	2	1	0	1	0	0	0	1	3	4	35.2
	50yr	0	1	1	0	0	0	0	0	0	0	1	1	35.3
053N-054N 052W-051W	100yr	1	5	2	3	0	1	0	0	0	1	6	7	29.4
	50yr	0	1	1	0	0	0	0	0	0	0	1	1	35.3
053N-054N 051W-050W	100yr	1	8	3	5	0	1	0	0	0	1	9	10	29.1
	50yr	0	2	1	1	0	0	0	0	0	0	2	2	25.9
053N-054N 050W-049W	100yr	0	5	3	2	0	0	0	0	0	0	5	5	27.2
	50yr	0	2	1	1	0	0	0	0	0	0	2	2	24.8
053N-054N 049W-048W	100yr	0	5	3	2	2	0	0	0	0	2	5	7	27.4
	50yr	0	2	1	1	2	0	0	0	0	2	2	4	26.1

Grid Cell	TD	TS	G	S	S1	S2	S3	S4	S5	H	<H	All	Spd
053N-054N 048W-047W 100yr	0	4	3	1	3	0	0	0	0	3	4	7	25.5
50yr	0	2	1	1	3	0	0	0	0	3	2	5	27.9
053N-054N 047W-046W 100yr	0	6	3	3	2	0	0	0	0	2	6	8	30.1
50yr	0	5	2	3	2	0	0	0	0	2	5	7	31.6
053N-054N 046W-045W 100yr	0	6	4	2	1	0	0	0	0	1	6	7	29.5
50yr	0	5	3	2	1	0	0	0	0	1	5	6	31.2
053N-054N 045W-044W 100yr	0	5	4	1	1	0	0	0	0	1	5	6	27.8
50yr	0	4	3	1	1	0	0	0	0	1	4	5	29.5
053N-054N 044W-043W 100yr	0	7	4	3	0	0	0	0	0	0	7	7	28.8
50yr	0	5	3	2	0	0	0	0	0	0	5	5	29.8
053N-054N 043W-042W 100yr	0	3	1	2	1	0	0	0	0	1	3	4	34.7
50yr	0	2	1	1	1	0	0	0	0	1	2	3	35.1
053N-054N 042W-041W 100yr	0	4	2	2	1	0	0	0	0	1	4	5	29.7
50yr	0	2	1	1	1	0	0	0	0	1	2	3	35.1
053N-054N 041W-040W 100yr	0	3	1	2	0	0	0	0	0	0	3	3	30.7
50yr	0	1	1	0	0	0	0	0	0	0	1	1	27.5
053N-054N 040W-039W 100yr	0	2	1	1	0	0	0	0	0	0	2	2	40.2
50yr	0	1	1	0	0	0	0	0	0	0	1	1	36.3
053N-054N 039W-038W 100yr	0	5	2	3	0	0	0	0	0	0	5	5	38.4
50yr	0	4	2	2	0	0	0	0	0	0	4	4	36.8
053N-054N 038W-037W 100yr	0	8	3	5	0	0	0	0	0	0	8	8	31.3
50yr	0	6	3	3	0	0	0	0	0	0	6	6	30.7
053N-054N 037W-036W 100yr	0	8	1	7	0	0	0	0	0	0	8	8	32.1
50yr	0	6	1	5	0	0	0	0	0	0	6	6	31.9
053N-054N 036W-035W 100yr	0	6	0	6	0	0	0	0	0	0	6	6	30.8
50yr	0	5	0	5	0	0	0	0	0	0	5	5	28.2
053N-054N 035W-034W 100yr	0	1	0	1	0	0	0	0	0	0	1	1	13.1
50yr	0	1	0	1	0	0	0	0	0	0	1	1	13.1
053N-054N 034W-033W 100yr	0	1	0	1	0	1	0	0	0	1	1	2	24.2
50yr	0	1	0	1	0	1	0	0	0	1	1	2	24.2
053N-054N 033W-032W 100yr	0	2	1	1	0	1	0	0	0	1	2	3	40.6
50yr	0	0	0	0	0	1	0	0	0	1	0	1	35.3
053N-054N 032W-031W 100yr	0	4	1	3	1	1	0	0	0	2	4	6	40.2
50yr	0	1	0	1	1	1	0	0	0	2	1	3	48.1
053N-054N 031W-030W 100yr	0	5	1	4	1	0	0	0	0	1	5	6	45.8
50yr	0	3	0	3	1	0	0	0	0	1	3	4	48.2
053N-054N 030W-029W 100yr	0	4	0	4	1	0	0	0	0	1	4	5	49.8
50yr	0	4	0	4	1	0	0	0	0	1	4	5	49.8
053N-054N 029W-028W 100yr	0	3	0	3	0	0	0	0	0	0	3	3	50.5
50yr	0	3	0	3	0	0	0	0	0	0	3	3	50.5
053N-054N 028W-027W 100yr	1	2	1	1	0	0	0	0	0	0	3	3	42.6
50yr	0	2	1	1	0	0	0	0	0	0	2	2	62.4
053N-054N 027W-026W 100yr	1	3	1	2	0	0	0	0	0	0	4	4	40.5
50yr	0	3	1	2	0	0	0	0	0	0	3	3	52.0
053N-054N 026W-025W 100yr	1	2	0	2	0	0	0	0	0	0	3	3	36.7
50yr	0	2	0	2	0	0	0	0	0	0	2	2	49.2
053N-054N 025W-024W 100yr	1	1	0	1	0	0	0	0	0	0	2	2	21.3
50yr	0	1	0	1	0	0	0	0	0	0	1	1	30.7

Grid Cell	TD	TS	G	S	S1	S2	S3	S4	S5	H	<H	All	Spd
053N-054N 024W-023W 100yr	0	1	0	1	1	0	0	0	0	1	1	2	42.3
50yr	0	1	0	1	1	0	0	0	0	1	1	2	42.3
053N-054N 023W-022W 100yr	0	2	0	2	1	0	0	0	0	1	2	3	46.7
50yr	0	2	0	2	1	0	0	0	0	1	2	3	46.7
053N-054N 022W-021W 100yr	0	3	0	3	1	0	0	0	0	1	3	4	46.2
50yr	0	3	0	3	1	0	0	0	0	1	3	4	46.2
053N-054N 021W-020W 100yr	0	1	0	1	1	0	0	0	0	1	1	2	47.5
50yr	0	1	0	1	1	0	0	0	0	1	1	2	47.5
053N-054N 020W-019W 100yr	0	1	0	1	0	0	0	0	0	0	1	1	40.2
50yr	0	1	0	1	0	0	0	0	0	0	1	1	40.2
053N-054N 019W-018W 100yr	0	1	0	1	1	0	0	0	0	1	1	2	46.2
50yr	0	1	0	1	1	0	0	0	0	1	1	2	46.2
053N-054N 018W-017W 100yr	0	1	0	1	1	0	0	0	0	1	1	2	47.3
50yr	0	1	0	1	1	0	0	0	0	1	1	2	47.3
053N-054N 017W-016W 100yr	0	3	1	2	1	0	0	0	0	1	3	4	29.3
50yr	0	3	1	2	1	0	0	0	0	1	3	4	29.3
053N-054N 016W-015W 100yr	0	3	1	2	1	0	0	0	0	1	3	4	29.2
50yr	0	3	1	2	1	0	0	0	0	1	3	4	29.2
053N-054N 015W-014W 100yr	0	3	0	3	1	0	0	0	0	1	3	4	35.9
50yr	0	2	0	2	1	0	0	0	0	1	2	3	39.9
053N-054N 014W-013W 100yr	0	3	0	3	1	0	0	0	0	1	3	4	35.9
50yr	0	2	0	2	1	0	0	0	0	1	2	3	39.9
053N-054N 013W-012W 100yr	0	3	0	3	0	0	0	0	0	0	3	3	30.8
50yr	0	2	0	2	0	0	0	0	0	0	2	2	34.2
053N-054N 012W-011W 100yr	0	3	0	3	0	0	0	0	0	0	3	3	34.4
50yr	0	3	0	3	0	0	0	0	0	0	3	3	34.4
053N-054N 011W-010W 100yr	0	3	0	3	1	0	0	0	0	1	3	4	36.6
50yr	0	3	0	3	1	0	0	0	0	1	3	4	36.6
053N-054N 010W-009W 100yr	0	3	0	3	1	0	0	0	0	1	3	4	36.6
50yr	0	3	0	3	1	0	0	0	0	1	3	4	36.6
053N-054N 009W-008W 100yr	0	1	0	1	0	0	0	0	0	0	1	1	26.6
50yr	0	1	0	1	0	0	0	0	0	0	1	1	26.6
053N-054N 008W-007W 100yr	0	1	0	1	0	0	0	0	0	0	1	1	25.3
50yr	0	1	0	1	0	0	0	0	0	0	1	1	25.3
053N-054N 002W-001W 100yr	0	1	1	0	0	0	0	0	0	0	1	1	13.9
50yr	0	1	1	0	0	0	0	0	0	0	1	1	13.9
053N-054N 001W-000W 100yr	0	1	1	0	0	0	0	0	0	0	1	1	13.8
50yr	0	1	1	0	0	0	0	0	0	0	1	1	13.8
053N-054N 000W-001E 100yr	0	2	1	1	0	0	0	0	0	0	2	2	20.3
50yr	0	2	1	1	0	0	0	0	0	0	2	2	20.3
053N-054N 001E-002E 100yr	0	2	1	1	0	0	0	0	0	0	2	2	20.3
50yr	0	2	1	1	0	0	0	0	0	0	2	2	20.3

054°N to 055°N

Grid Cell	TD	TS	G	S	S1	S2	S3	S4	S5	H	<H	All	Spd
054N-055N 079W-078W 100yr	0	1	1	0	0	0	0	0	0	0	1	1	16.6
50yr	0	1	1	0	0	0	0	0	0	0	1	1	16.6

Grid Cell		TD	TS	G	S	S1	S2	S3	S4	S5	H	<H	All	Spd
054N-055N 078W-077W	100yr	0	1	1	0	0	0	0	0	0	0	1	1	19.7
	50yr	0	1	1	0	0	0	0	0	0	0	1	1	19.7
054N-055N 077W-076W	100yr	0	1	1	0	0	0	0	0	0	0	1	1	19.7
	50yr	0	1	1	0	0	0	0	0	0	0	1	1	19.7
054N-055N 070W-069W	100yr	1	0	0	0	0	0	0	0	0	0	1	1	36.5
	50yr	1	0	0	0	0	0	0	0	0	0	1	1	36.5
054N-055N 069W-068W	100yr	1	0	0	0	0	0	0	0	0	0	1	1	36.5
	50yr	1	0	0	0	0	0	0	0	0	0	1	1	36.5
054N-055N 068W-067W	100yr	1	0	0	0	0	0	0	0	0	0	1	1	31.9
	50yr	1	0	0	0	0	0	0	0	0	0	1	1	31.9
054N-055N 067W-066W	100yr	1	0	0	0	0	0	0	0	0	0	1	1	31.9
	50yr	1	0	0	0	0	0	0	0	0	0	1	1	31.9
054N-055N 062W-061W	100yr	0	1	1	0	0	0	0	0	0	0	1	1	38.3
	50yr	0	1	1	0	0	0	0	0	0	0	1	1	38.3
054N-055N 061W-060W	100yr	0	1	1	0	0	0	0	0	0	0	1	1	38.3
	50yr	0	1	1	0	0	0	0	0	0	0	1	1	38.3
054N-055N 060W-059W	100yr	0	2	1	1	0	0	0	0	0	0	2	2	28.0
	50yr	0	2	1	1	0	0	0	0	0	0	2	2	28.0
054N-055N 059W-058W	100yr	1	2	0	2	0	0	0	0	0	0	3	3	23.8
	50yr	0	2	0	2	0	0	0	0	0	0	2	2	21.9
054N-055N 058W-057W	100yr	1	2	1	1	0	0	0	0	0	0	3	3	24.9
	50yr	0	2	1	1	0	0	0	0	0	0	2	2	25.3
054N-055N 057W-056W	100yr	1	1	1	0	0	0	0	0	0	0	2	2	23.5
	50yr	0	1	1	0	0	0	0	0	0	0	1	1	22.6
054N-055N 056W-055W	100yr	1	1	1	0	0	0	0	0	0	0	2	2	29.7
	50yr	0	1	1	0	0	0	0	0	0	0	1	1	35.0
054N-055N 055W-054W	100yr	1	1	1	0	0	0	0	0	0	0	2	2	28.9
	50yr	0	1	1	0	0	0	0	0	0	0	1	1	35.0
054N-055N 054W-053W	100yr	1	1	1	0	0	0	0	0	0	0	2	2	18.1
	50yr	0	0	0	0	0	0	0	0	0	0	0	0	0.0
054N-055N 053W-052W	100yr	1	4	3	1	0	0	0	0	0	0	5	5	29.0
	50yr	0	1	1	0	0	0	0	0	0	0	1	1	40.0
054N-055N 052W-051W	100yr	1	2	1	1	0	0	0	0	0	0	3	3	29.4
	50yr	0	1	1	0	0	0	0	0	0	0	1	1	40.0
054N-055N 051W-050W	100yr	1	3	1	2	0	1	0	0	0	1	4	5	28.9
	50yr	0	0	0	0	0	0	0	0	0	0	0	0	0.0
054N-055N 050W-049W	100yr	1	4	3	1	0	1	0	0	0	1	5	6	29.9
	50yr	0	0	0	0	0	0	0	0	0	0	0	0	0.0
054N-055N 049W-048W	100yr	1	5	3	2	0	1	0	0	0	1	6	7	27.6
	50yr	0	1	0	1	0	0	0	0	0	0	1	1	24.7
054N-055N 048W-047W	100yr	1	4	2	2	0	0	0	0	0	0	5	5	21.8
	50yr	0	1	0	1	0	0	0	0	0	0	1	1	24.7
054N-055N 047W-046W	100yr	1	4	1	3	2	0	0	0	0	2	5	7	26.3
	50yr	0	2	0	2	2	0	0	0	0	2	2	4	29.3
054N-055N 046W-045W	100yr	1	4	1	3	2	0	0	0	0	2	5	7	29.7
	50yr	0	2	0	2	2	0	0	0	0	2	2	4	34.9
054N-055N 045W-044W	100yr	1	3	1	2	1	0	0	0	0	1	4	5	28.9
	50yr	0	3	1	2	1	0	0	0	0	1	3	4	30.9

Grid Cell	TD	TS	G	S	S1	S2	S3	S4	S5	H	<H	All	Spd
054N-055N 044W-043W 100yr	1	4	3	1	0	0	0	0	0	0	5	5	28.0
50yr	0	3	2	1	0	0	0	0	0	0	3	3	33.3
054N-055N 043W-042W 100yr	0	4	2	2	0	0	0	0	0	0	4	4	29.2
50yr	0	2	1	1	0	0	0	0	0	0	2	2	32.2
054N-055N 042W-041W 100yr	0	6	3	3	1	0	0	0	0	1	6	7	31.7
50yr	0	3	1	2	1	0	0	0	0	1	3	4	37.1
054N-055N 041W-040W 100yr	0	5	2	3	1	0	0	0	0	1	5	6	30.7
50yr	0	3	1	2	1	0	0	0	0	1	3	4	37.2
054N-055N 040W-039W 100yr	0	4	1	3	1	0	0	0	0	1	4	5	30.3
50yr	0	2	0	2	1	0	0	0	0	1	2	3	38.7
054N-055N 039W-038W 100yr	0	2	0	2	0	0	0	0	0	0	2	2	31.8
50yr	0	0	0	0	0	0	0	0	0	0	0	0	0.0
054N-055N 038W-037W 100yr	0	2	1	1	0	0	0	0	0	0	2	2	40.4
50yr	0	1	1	0	0	0	0	0	0	0	1	1	36.3
054N-055N 037W-036W 100yr	0	5	2	3	0	0	0	0	0	0	5	5	30.7
50yr	0	4	2	2	0	0	0	0	0	0	4	4	32.9
054N-055N 036W-035W 100yr	0	8	2	6	0	0	0	0	0	0	8	8	35.5
50yr	0	6	2	4	0	0	0	0	0	0	6	6	36.3
054N-055N 035W-034W 100yr	0	5	2	3	0	0	0	0	0	0	5	5	34.0
50yr	0	3	2	1	0	0	0	0	0	0	3	3	34.7
054N-055N 034W-033W 100yr	0	2	0	2	0	0	0	0	0	0	2	2	27.3
50yr	0	1	0	1	0	0	0	0	0	0	1	1	13.7
054N-055N 033W-032W 100yr	0	1	0	1	0	0	0	0	0	0	1	1	14.5
50yr	0	1	0	1	0	0	0	0	0	0	1	1	14.5
054N-055N 032W-031W 100yr	0	2	0	2	0	1	0	0	0	1	2	3	21.2
50yr	0	1	0	1	0	1	0	0	0	1	1	2	24.9
054N-055N 031W-030W 100yr	0	3	1	2	1	1	0	0	0	2	3	5	37.5
50yr	0	1	0	1	1	1	0	0	0	2	1	3	35.2
054N-055N 030W-029W 100yr	0	4	1	3	2	1	0	0	0	3	4	7	43.3
50yr	0	2	0	2	2	1	0	0	0	3	2	5	44.3
054N-055N 029W-028W 100yr	0	4	1	3	1	0	0	0	0	1	4	5	47.1
50yr	0	2	0	2	1	0	0	0	0	1	2	3	51.3
054N-055N 028W-027W 100yr	0	2	1	1	0	0	0	0	0	0	2	2	45.0
50yr	0	1	0	1	0	0	0	0	0	0	1	1	50.4
054N-055N 027W-026W 100yr	0	1	0	1	0	0	0	0	0	0	1	1	50.4
50yr	0	1	0	1	0	0	0	0	0	0	1	1	50.4
054N-055N 026W-025W 100yr	0	1	0	1	0	0	0	0	0	0	1	1	67.6
50yr	0	1	0	1	0	0	0	0	0	0	1	1	67.6
054N-055N 025W-024W 100yr	0	2	0	2	0	0	0	0	0	0	2	2	53.1
50yr	0	2	0	2	0	0	0	0	0	0	2	2	53.1
054N-055N 024W-023W 100yr	0	4	0	4	0	0	0	0	0	0	4	4	47.6
50yr	0	4	0	4	0	0	0	0	0	0	4	4	47.6
054N-055N 023W-022W 100yr	0	4	0	4	0	0	0	0	0	0	4	4	48.5
50yr	0	4	0	4	0	0	0	0	0	0	4	4	48.5
054N-055N 022W-021W 100yr	0	4	0	4	1	0	0	0	0	1	4	5	45.4
50yr	0	4	0	4	1	0	0	0	0	1	4	5	45.4
054N-055N 021W-020W 100yr	0	2	0	2	1	0	0	0	0	1	2	3	54.5
50yr	0	2	0	2	1	0	0	0	0	1	2	3	54.5

Grid Cell	TD	TS	G	S	S1	S2	S3	S4	S5	H	<H	All	Spd
054N-055N 020W-019W 100yr	0	3	0	3	0	0	0	0	0	0	3	3	49.9
50yr	0	3	0	3	0	0	0	0	0	0	3	3	49.9
054N-055N 019W-018W 100yr	0	3	1	2	0	0	0	0	0	0	3	3	36.9
50yr	0	3	1	2	0	0	0	0	0	0	3	3	36.9
054N-055N 018W-017W 100yr	0	3	1	2	0	0	0	0	0	0	3	3	35.0
50yr	0	3	1	2	0	0	0	0	0	0	3	3	35.0
054N-055N 017W-016W 100yr	0	4	1	3	0	0	0	0	0	0	4	4	26.6
50yr	0	4	1	3	0	0	0	0	0	0	4	4	26.6
054N-055N 016W-015W 100yr	0	3	0	3	0	0	0	0	0	0	3	3	19.5
50yr	0	3	0	3	0	[illegible]	0	0	0	0	3	3	19.5
054N-055N 015W-014W 100yr	0	1	1	0	0	[illegible]	0	0	0	0	1	1	8.7
50yr	0	1	1	0	0	[illegible]	0	0	0	0	1	1	8.7
054N-055N 014W-013W 100yr	0	0	0	0	1	0	0	0	0	1	0	1	52.3
50yr	0	0	0	0	1	0	0	0	0	1	0	1	52.3
054N-055N 013W-012W 100yr	0	1	0	1	1	0	0	0	0	1	1	2	38.1
50yr	0	0	0	0	1	0	0	0	0	1	0	1	52.3
054N-055N 012W-011W 100yr	0	1	0	1	0	0	0	0	0	0	1	1	20.4
50yr	0	0	0	0	0	0	0	0	0	0	0	0	0.0
054N-055N 011W-010W 100yr	0	2	0	2	0	0	0	0	0	0	2	2	26.0
50yr	0	1	0	1	0	0	0	0	0	0	1	1	34.9
054N-055N 010W-009W 100yr	0	2	0	2	1	0	0	0	0	1	2	3	31.3
50yr	0	1	0	1	1	0	0	0	0	1	1	2	38.4
054N-055N 009W-008W 100yr	0	1	0	1	0	0	0	0	0	0	1	1	34.6
50yr	0	1	0	1	0	0	0	0	0	0	1	1	34.6
054N-055N 008W-007W 100yr	0	1	0	1	0	0	0	0	0	0	1	1	25.3
50yr	0	1	0	1	0	0	0	0	0	0	1	1	25.3
054N-055N 007W-006W 100yr	0	1	0	1	0	0	0	0	0	0	1	1	23.9
50yr	0	1	0	1	0	0	0	0	0	0	1	1	23.9
054N-055N 006W-005W 100yr	0	1	0	1	0	0	0	0	0	0	1	1	23.9
50yr	0	1	0	1	0	0	0	0	0	0	1	1	23.9
054N-055N 005W-004W 100yr	0	1	0	1	0	0	0	0	0	0	1	1	23.9
50yr	0	1	0	1	0	0	0	0	0	0	1	1	23.9
054N-055N 004W-003W 100yr	0	1	0	1	0	0	0	0	0	0	1	1	25.4
50yr	0	1	0	1	0	0	0	0	0	0	1	1	25.4
054N-055N 003W-002W 100yr	0	1	0	1	0	0	0	0	0	0	1	1	26.8
50yr	0	1	0	1	0	0	0	0	0	0	1	1	26.8
054N-055N 002W-001W 100yr	0	1	0	1	0	0	0	0	0	0	1	1	26.8
50yr	0	1	0	1	0	0	0	0	0	0	1	1	26.8
054N-055N 001W-000W 100yr	0	1	0	1	0	0	0	0	0	0	1	1	26.8
50yr	0	1	0	1	0	0	0	0	0	0	1	1	26.8
054N-055N 000W-001E 100yr	0	1	0	1	0	0	0	0	0	0	1	1	26.8
50yr	0	1	0	1	0	0	0	0	0	0	1	1	26.8
054N-055N 001E-002E 100yr	0	2	1	1	0	0	0	0	0	0	2	2	19.9
50yr	0	2	1	1	0	0	0	0	0	0	2	2	19.9
054N-055N 002E-003E 100yr	0	1	1	0	0	0	0	0	0	0	1	1	12.9
50yr	0	1	1	0	0	0	0	0	0	0	1	1	12.9
054N-055N 003E-004E 100yr	0	1	1	0	0	0	0	0	0	0	1	1	10.5
50yr	0	1	1	0	0	0	0	0	0	0	1	1	10.5

055°N to 056°N

Grid Cell		TD	TS	G	S	S1	S2	S3	S4	S5	H	<H	All	Spd
055N-056N 077W-076W	100yr	0	1	1	0	0	0	0	0	0	0	1	1	21.2
	50yr	0	1	1	0	0	0	0	0	0	0	1	1	21.2
055N-056N 076W-075W	100yr	0	1	1	0	0	0	0	0	0	0	1	1	22.6
	50yr	0	1	1	0	0	0	0	0	0	0	1	1	22.6
055N-056N 069W-068W	100yr	1	0	0	0	0	0	0	0	0	0	1	1	37.0
	50yr	1	0	0	0	0	0	0	0	0	0	1	1	37.0
055N-056N 067W-066W	100yr	1	0	0	0	0	0	0	0	0	0	1	1	31.9
	50yr	1	0	0	0	0	0	0	0	0	0	1	1	31.9
055N-056N 060W-059W	100yr	0	1	1	0	0	0	0	0	0	0	1	1	38.3
	50yr	0	1	1	0	0	0	0	0	0	0	1	1	38.3
055N-056N 059W-058W	100yr	0	2	1	1	0	0	0	0	0	0	2	2	26.4
	50yr	0	2	1	1	0	0	0	0	0	0	2	2	26.4
055N-056N 058W-057W	100yr	0	2	0	2	0	0	0	0	0	0	2	2	21.7
	50yr	0	2	0	2	0	0	0	0	0	0	2	2	21.7
055N-056N 055W-054W	100yr	0	1	1	0	0	0	0	0	0	0	1	1	35.0
	50yr	0	1	1	0	0	0	0	0	0	0	1	1	35.0
055N-056N 054W-053W	100yr	0	1	1	0	0	0	0	0	0	0	1	1	35.0
	50yr	0	1	1	0	0	0	0	0	0	0	1	1	35.0
055N-056N 053W-052W	100yr	0	4	4	0	0	0	0	0	0	0	4	4	34.2
	50yr	0	2	2	0	0	0	0	0	0	0	2	2	38.3
055N-056N 052W-051W	100yr	0	5	5	0	0	0	0	0	0	0	5	5	32.8
	50yr	0	2	2	0	0	0	0	0	0	0	2	2	38.3
055N-056N 051W-050W	100yr	0	3	2	1	0	0	0	0	0	0	3	3	24.4
	50yr	0	0	0	0	0	0	0	0	0	0	0	0	0.0
055N-056N 050W-049W	100yr	0	1	0	1	0	0	0	0	0	0	1	1	37.0
	50yr	0	0	0	0	0	0	0	0	0	0	0	0	0.0
055N-056N 049W-048W	100yr	0	1	1	0	0	1	0	0	0	1	1	2	30.8
	50yr	0	0	0	0	0	0	0	0	0	0	0	0	0.0
055N-056N 048W-047W	100yr	0	2	2	0	0	1	0	0	0	1	2	3	26.4
	50yr	0	0	0	0	0	0	0	0	0	0	0	0	0.0
055N-056N 047W-046W	100yr	0	3	2	1	1	1	0	0	0	2	3	5	25.6
	50yr	0	1	0	1	1	0	0	0	0	1	1	2	24.4
055N-056N 046W-045W	100yr	0	5	2	3	2	0	0	0	0	2	5	7	25.8
	50yr	0	2	0	2	2	0	0	0	0	2	2	4	29.2
055N-056N 045W-044W	100yr	0	4	2	2	2	0	0	0	0	2	4	6	27.5
	50yr	0	2	0	2	2	0	0	0	0	2	2	4	31.3
055N-056N 044W-043W	100yr	0	3	1	2	1	0	0	0	0	1	3	4	28.9
	50yr	0	3	1	2	1	0	0	0	0	1	3	4	28.9
055N-056N 043W-042W	100yr	0	1	0	1	0	0	0	0	0	0	1	1	25.1
	50yr	0	1	0	1	0	0	0	0	0	0	1	1	25.1
055N-056N 042W-041W	100yr	0	4	2	2	0	0	0	0	0	0	4	4	29.2
	50yr	0	2	1	1	0	0	0	0	0	0	2	2	29.0
055N-056N 041W-040W	100yr	0	3	2	1	1	0	0	0	0	1	3	4	37.3

Grid Cell	TD	TS	G	S	S1	S2	S3	S4	S5	H	<H	All	Spd
50yr	0	1	1	0	1	0	0	0	0	1	1	2	44.4
055N-056N 040W-039W 100yr	0	5	2	3	1	0	0	0	0	1	5	6	34.4
50yr	0	3	1	2	1	0	0	0	0	1	3	4	36.5
055N-056N 039W-038W 100yr	0	5	2	3	0	0	0	0	0	0	5	5	24.4
50yr	0	3	1	2	0	0	0	0	0	0	3	3	30.1
055N-056N 038W-037W 100yr	0	6	2	4	0	0	0	0	0	0	6	6	26.9
50yr	0	3	1	2	0	0	0	0	0	0	3	3	29.0
055N-056N 037W-036W 100yr	0	3	1	2	0	0	0	0	0	0	3	3	32.3
50yr	0	2	1	1	0	0	0	0	0	0	2	2	26.3
055N-056N 036W-035W 100yr	0	3	1	2	0	0	0	0	0	0	3	3	34.6
50yr	0	3	1	2	0	0	0	0	0	0	3	3	34.6
055N-056N 035W-034W 100yr	0	7	3	4	0	0	0	0	0	0	7	7	33.7
50yr	0	6	3	3	0	0	0	0	0	0	6	6	35.3
055N-056N 034W-033W 100yr	0	6	2	4	0	0	0	0	0	0	6	6	36.1
50yr	0	4	2	2	0	0	0	0	0	0	4	4	38.1
055N-056N 033W-032W 100yr	0	4	3	1	0	0	0	0	0	0	4	4	31.9
50yr	0	2	2	0	0	0	0	0	0	0	2	2	37.4
055N-056N 032W-031W 100yr	0	5	2	3	0	0	0	0	0	0	5	5	28.3
50yr	0	3	2	1	0	0	0	0	0	0	3	3	30.0
055N-056N 031W-030W 100yr	0	2	1	1	1	0	0	0	0	1	2	3	34.5
50yr	0	2	1	1	1	0	0	0	0	1	2	3	34.5
055N-056N 030W-029W 100yr	0	3	1	2	1	1	0	0	0	2	3	5	33.7
50yr	0	3	1	2	1	1	0	0	0	2	3	5	33.7
055N-056N 029W-028W 100yr	0	2	1	1	0	1	0	0	0	1	2	3	37.3
50yr	0	1	1	0	0	1	0	0	0	1	1	2	34.9
055N-056N 028W-027W 100yr	0	3	2	1	0	1	0	0	0	1	3	4	37.9
50yr	0	1	1	0	0	1	0	0	0	1	1	2	34.9
055N-056N 027W-026W 100yr	0	4	2	2	0	0	0	0	0	0	4	4	41.9
50yr	0	2	1	1	0	0	0	0	0	0	2	2	42.9
055N-056N 026W-025W 100yr	0	2	1	1	0	0	0	0	0	0	2	2	42.9
50yr	0	2	1	1	0	0	0	0	0	0	2	2	42.9
055N-056N 025W-024W 100yr	0	3	0	3	0	0	0	0	0	0	3	3	47.6
50yr	0	3	0	3	0	0	0	0	0	0	3	3	47.6
055N-056N 024W-023W 100yr	0	2	0	2	0	0	0	0	0	0	2	2	46.1
50yr	0	2	0	2	0	0	0	0	0	0	2	2	46.1
055N-056N 022W-021W 100yr	0	1	0	1	0	0	0	0	0	0	1	1	34.7
50yr	0	1	0	1	0	0	0	0	0	0	1	1	34.7
055N-056N 021W-020W 100yr	0	2	1	1	0	0	0	0	0	0	2	2	48.1
50yr	0	2	1	1	0	0	0	0	0	0	2	2	48.1
055N-056N 020W-019W 100yr	0	2	1	1	0	0	0	0	0	0	2	2	48.1
50yr	0	2	1	1	0	0	0	0	0	0	2	2	48.1
055N-056N 019W-018W 100yr	0	1	1	0	0	0	0	0	0	0	1	1	28.6
50yr	0	1	1	0	0	0	0	0	0	0	1	1	28.6
055N-056N 017W-016W 100yr	0	1	0	1	0	0	0	0	0	0	1	1	40.2
50yr	0	1	0	1	0	0	0	0	0	0	1	1	40.2
055N-056N 016W-015W 100yr	0	3	1	2	0	0	0	0	0	0	3	3	22.2
50yr	0	3	1	2	0	0	0	0	0	0	3	3	22.2
055N-056N 015W-014W 100yr	0	2	1	1	0	0	0	0	0	0	2	2	22.6

Grid Cell		TD	TS	G	S	S1	S2	S3	S4	S5	H	<H	All	Spd
	50yr	0	2	1	1	0	0	0	0	0	0	2	2	22.6
055N-056N 014W-013W	100yr	0	2	1	1	0	0	0	0	0	0	2	2	21.1
	50yr	0	2	1	1	0	0	0	0	0	0	2	2	21.1
055N-056N 010W-009W	100yr	0	2	0	2	1	0	0	0	0	1	2	3	31.3
	50yr	0	1	0	1	1	0	0	0	0	1	1	2	38.4
055N-056N 009W-008W	100yr	0	1	0	1	1	0	0	0	0	1	1	2	38.4
	50yr	0	1	0	1	1	0	0	0	0	1	1	2	38.4
055N-056N 008W-007W	100yr	0	1	1	0	0	0	0	0	0	0	1	1	34.3
	50yr	0	1	1	0	0	0	0	0	0	0	1	1	34.3
055N-056N 003E-004E	100yr	0	1	1	0	0	0	0	0	0	0	1	1	10.5
	50yr	0	1	1	0	0	0	0	0	0	0	1	1	10.5
055N-056N 004E-005E	100yr	0	1	1	0	0	0	0	0	0	0	1	1	7.8
	50yr	0	1	1	0	0	0	0	0	0	0	1	1	7.8
055N-056N 005E-006E	100yr	0	1	1	0	0	0	0	0	0	0	1	1	6.3
	50yr	0	1	1	0	0	0	0	0	0	0	1	1	6.3

056°N to 057°N

Grid Cell		TD	TS	G	S	S1	S2	S3	S4	S5	H	<H	All	Spd
056N-057N 076W-075W	100yr	0	1	1	0	0	0	0	0	0	0	1	1	22.6
	50yr	0	1	1	0	0	0	0	0	0	0	1	1	22.6
056N-057N 075W-074W	100yr	0	1	1	0	0	0	0	0	0	0	1	1	22.6
	50yr	0	1	1	0	0	0	0	0	0	0	1	1	22.6
056N-057N 074W-073W	100yr	0	1	1	0	0	0	0	0	0	0	1	1	22.4
	50yr	0	1	1	0	0	0	0	0	0	0	1	1	22.4
056N-057N 073W-072W	100yr	0	1	1	0	0	0	0	0	0	0	1	1	22.4
	50yr	0	1	1	0	0	0	0	0	0	0	1	1	22.4
056N-057N 069W-068W	100yr	1	0	0	0	0	0	0	0	0	0	1	1	37.0
	50yr	1	0	0	0	0	0	0	0	0	0	1	1	37.0
056N-057N 067W-066W	100yr	1	0	0	0	0	0	0	0	0	0	1	1	32.2
	50yr	1	0	0	0	0	0	0	0	0	0	1	1	32.2
056N-057N 059W-058W	100yr	0	1	1	0	0	0	0	0	0	0	1	1	38.3
	50yr	0	1	1	0	0	0	0	0	0	0	1	1	38.3
056N-057N 058W-057W	100yr	0	2	1	1	0	0	0	0	0	0	2	2	22.3
	50yr	0	2	1	1	0	0	0	0	0	0	2	2	22.3
056N-057N 057W-056W	100yr	0	2	1	1	0	0	0	0	0	0	2	2	21.5
	50yr	0	2	1	1	0	0	0	0	0	0	2	2	21.5
056N-057N 056W-055W	100yr	0	1	1	0	0	0	0	0	0	0	1	1	14.0
	50yr	0	1	1	0	0	0	0	0	0	0	1	1	14.0
056N-057N 053W-052W	100yr	0	2	2	0	0	0	0	0	0	0	2	2	35.8
	50yr	0	2	2	0	0	0	0	0	0	0	2	2	35.8
056N-057N 052W-051W	100yr	0	3	3	0	0	0	0	0	0	0	3	3	37.8
	50yr	0	2	2	0	0	0	0	0	0	0	2	2	35.8
056N-057N 051W-050W	100yr	0	5	5	0	0	0	0	0	0	0	5	5	31.1
	50yr	0	1	1	0	0	0	0	0	0	0	1	1	38.3
056N-057N 050W-049W	100yr	0	5	4	1	0	0	0	0	0	0	5	5	30.3
	50yr	0	1	1	0	0	0	0	0	0	0	1	1	38.3
056N-057N 049W-048W	100yr	0	3	2	1	0	0	0	0	0	0	3	3	28.7

Grid Cell	TD	TS	G	S	S1	S2	S3	S4	S5	H	<H	All	Spd
50yr	0	1	1	0	0	0	0	0	0	0	1	1	38.3
056N-057N 047W-046W 100yr	0	1	1	0	0	1	0	0	0	1	1	2	30.6
50yr	0	0	0	0	0	0	0	0	0	0	0	0	0.0
056N-057N 046W-045W 100yr	1	4	3	1	0	1	0	0	0	1	5	6	20.5
50yr	1	2	1	1	0	0	0	0	0	0	3	3	15.1
056N-057N 045W-044W 100yr	1	4	3	1	1	1	0	0	0	2	5	7	23.9
50yr	1	1	0	1	1	0	0	0	0	1	2	3	23.5
056N-057N 044W-043W 100yr	1	4	3	1	2	1	0	0	0	3	5	8	27.6
50yr	1	2	1	1	2	0	0	0	0	2	3	5	29.5
056N-057N 043W-042W 100yr	1	4	3	1	0	0	0	0	0	0	5	5	28.0
50yr	1	2	1	1	0	0	0	0	0	0	3	3	33.2
056N-057N 042W-041W 100yr	0	2	1	1	0	0	0	0	0	0	2	2	22.0
50yr	0	1	0	1	0	0	0	0	0	0	1	1	23.8
056N-057N 041W-040W 100yr	0	2	1	1	0	0	0	0	0	0	2	2	21.9
50yr	0	1	0	1	0	0	0	0	0	0	1	1	22.4
056N-057N 040W-039W 100yr	0	2	0	2	0	0	0	0	0	0	2	2	33.2
50yr	0	1	0	1	0	0	0	0	0	0	1	1	22.4
056N-057N 039W-038W 100yr	0	2	0	2	0	0	0	0	0	0	2	2	33.2
50yr	0	1	0	1	0	0	0	0	0	0	1	1	22.4
056N-057N 038W-037W 100yr	0	5	1	4	0	0	0	0	0	0	5	5	25.0
50yr	0	2	0	2	0	0	0	0	0	0	2	2	25.9
056N-057N 037W-036W 100yr	0	6	2	4	0	0	0	0	0	0	6	6	30.2
50yr	0	2	1	1	0	0	0	0	0	0	2	2	32.3
056N-057N 036W-035W 100yr	0	3	2	1	0	0	0	0	0	0	3	3	25.2
50yr	0	1	1	0	0	0	0	0	0	0	1	1	31.8
056N-057N 035W-034W 100yr	0	7	3	4	0	0	0	0	0	0	7	7	30.0
50yr	0	5	2	3	0	0	0	0	0	0	5	5	33.4
056N-057N 034W-033W 100yr	0	7	3	4	0	0	0	0	0	0	7	7	29.4
50yr	0	5	2	3	0	0	0	0	0	0	5	5	33.5
056N-057N 033W-032W 100yr	0	5	2	3	0	0	0	0	0	0	5	5	23.2
50yr	0	3	1	2	0	0	0	0	0	0	3	3	26.8
056N-057N 032W-031W 100yr	0	5	3	2	0	0	0	0	0	0	5	5	32.0
50yr	0	3	2	1	0	0	0	0	0	0	3	3	31.9
056N-057N 031W-030W 100yr	0	5	2	3	0	0	0	0	0	0	5	5	33.0
50yr	0	4	2	2	0	0	0	0	0	0	4	4	31.1
056N-057N 030W-029W 100yr	0	5	2	3	0	0	0	0	0	0	5	5	31.5
50yr	0	4	2	2	0	0	0	0	0	0	4	4	29.2
056N-057N 029W-028W 100yr	0	1	0	1	0	0	0	0	0	0	1	1	12.3
50yr	0	1	0	1	0	0	0	0	0	0	1	1	12.3
056N-057N 028W-027W 100yr	0	0	0	0	0	1	0	0	0	1	0	1	34.4
50yr	0	0	0	0	0	1	0	0	0	1	0	1	34.4
056N-057N 027W-026W 100yr	0	2	0	2	0	1	0	0	0	1	2	3	43.4
50yr	0	1	0	1	0	1	0	0	0	1	1	2	44.0
056N-057N 026W-025W 100yr	0	2	0	2	0	1	0	0	0	1	2	3	43.4
50yr	0	1	0	1	0	1	0	0	0	1	1	2	44.0
056N-057N 025W-024W 100yr	0	1	0	1	0	0	0	0	0	0	1	1	53.6
50yr	0	1	0	1	0	0	0	0	0	0	1	1	53.6
056N-057N 024W-023W 100yr	0	1	0	1	0	0	0	0	0	0	1	1	27.4

Grid Cell		TD	TS	G	S	S1	S2	S3	S4	S5	H	<H	All	Spd
	50yr	0	1	0	1	0	0	0	0	0	0	1	1	27.4
056N-057N 023W-022W	100yr	0	2	0	2	0	0	0	0	0	0	2	2	32.1
	50yr	0	2	0	2	0	0	0	0	0	0	2	2	32.1
056N-057N 022W-021W	100yr	0	2	0	2	0	0	0	0	0	0	2	2	32.4
	50yr	0	2	0	2	0	0	0	0	0	0	2	2	32.4
056N-057N 021W-020W	100yr	0	1	1	0	0	0	0	0	0	0	1	1	28.6
	50yr	0	1	1	0	0	0	0	0	0	0	1	1	28.6
056N-057N 016W-015W	100yr	0	1	0	1	0	0	0	0	0	0	1	1	20.2
	50yr	0	1	0	1	0	0	0	0	0	0	1	1	20.2
056N-057N 014W-013W	100yr	0	2	1	1	0	0	0	0	0	0	2	2	20.7
	50yr	0	2	1	1	0	0	0	0	0	0	2	2	20.7
056N-057N 013W-012W	100yr	1	1	0	1	0	0	0	0	0	0	2	2	20.9
	50yr	1	1	0	1	0	0	0	0	0	0	2	2	20.9
056N-057N 012W-011W	100yr	1	0	0	0	0	0	0	0	0	0	1	1	8.5
	50yr	1	0	0	0	0	0	0	0	0	0	1	1	8.5
056N-057N 009W-008W	100yr	0	1	1	0	0	0	0	0	0	0	1	1	34.3
	50yr	0	1	1	0	0	0	0	0	0	0	1	1	34.3
056N-057N 008W-007W	100yr	0	1	1	0	0	0	0	0	0	0	1	1	34.3
	50yr	0	1	1	0	0	0	0	0	0	0	1	1	34.3
056N-057N 007W-006W	100yr	0	1	1	0	0	0	0	0	0	0	1	1	34.3
	50yr	0	1	1	0	0	0	0	0	0	0	1	1	34.3
056N-057N 004E-005E	100yr	1	0	0	0	0	0	0	0	0	0	1	1	3.5
	50yr	1	0	0	0	0	0	0	0	0	0	1	1	3.5
056N-057N 005E-006E	100yr	0	1	1	0	0	0	0	0	0	0	1	1	4.1
	50yr	0	1	1	0	0	0	0	0	0	0	1	1	4.1
056N-057N 006E-007E	100yr	0	1	1	0	0	0	0	0	0	0	1	1	4.3
	50yr	0	1	1	0	0	0	0	0	0	0	1	1	4.3
056N-057N 007E-008E	100yr	1	0	0	0	0	0	0	0	0	0	1	1	11.1
	50yr	1	0	0	0	0	0	0	0	0	0	1	1	11.1
056N-057N 008E-009E	100yr	1	0	0	0	0	0	0	0	0	0	1	1	11.1
	50yr	1	0	0	0	0	0	0	0	0	0	1	1	11.1

057°N to 058°N

Grid Cell		TD	TS	G	S	S1	S2	S3	S4	S5	H	<H	All	Spd
057N-058N 074W-073W	100yr	0	1	1	0	0	0	0	0	0	0	1	1	22.4
	50yr	0	1	1	0	0	0	0	0	0	0	1	1	22.4
057N-058N 073W-072W	100yr	0	1	1	0	0	0	0	0	0	0	1	1	22.4
	50yr	0	1	1	0	0	0	0	0	0	0	1	1	22.4
057N-058N 072W-071W	100yr	1	0	0	0	0	0	0	0	0	0	1	1	22.2
	50yr	1	0	0	0	0	0	0	0	0	0	1	1	22.2
057N-058N 071W-070W	100yr	1	0	0	0	0	0	0	0	0	0	1	1	22.2
	50yr	1	0	0	0	0	0	0	0	0	0	1	1	22.2
057N-058N 070W-069W	100yr	1	0	0	0	0	0	0	0	0	0	1	1	22.2
	50yr	1	0	0	0	0	0	0	0	0	0	1	1	22.2
057N-058N 069W-068W	100yr	1	0	0	0	0	0	0	0	0	0	1	1	37.0
	50yr	1	0	0	0	0	0	0	0	0	0	1	1	37.0
057N-058N 067W-066W	100yr	1	0	0	0	0	0	0	0	0	0	1	1	32.6

Grid Cell		TD	TS	G	S	S1	S2	S3	S4	S5	H	<H	All	Spd
	50yr	1	0	0	0	0	0	0	0	0	0	1	1	32.6
057N-058N 066W-065W	100yr	1	0	0	0	0	0	0	0	0	0	1	1	32.6
	50yr	1	0	0	0	0	0	0	0	0	0	1	1	32.6
057N-058N 057W-056W	100yr	0	1	0	1	0	0	0	0	0	0	1	1	27.6
	50yr	0	1	0	1	0	0	0	0	0	0	1	1	27.6
057N-058N 056W-055W	100yr	0	2	2	0	0	0	0	0	0	0	2	2	20.6
	50yr	0	2	2	0	0	0	0	0	0	0	2	2	20.6
057N-058N 055W-054W	100yr	0	1	1	0	0	0	0	0	0	0	1	1	12.9
	50yr	0	1	1	0	0	0	0	0	0	0	1	1	12.9
057N-058N 053W-052W	100yr	0	1	1	0	0	0	0	0	0	0	1	1	35.0
	50yr	0	1	1	0	0	0	0	0	0	0	1	1	35.0
057N-058N 052W-051W	100yr	0	1	1	0	0	0	0	0	0	0	1	1	35.0
	50yr	0	1	1	0	0	0	0	0	0	0	1	1	35.0
057N-058N 051W-050W	100yr	0	1	1	0	0	0	0	0	0	0	1	1	41.6
	50yr	0	0	0	0	0	0	0	0	0	0	0	0	0.0
057N-058N 050W-049W	100yr	0	4	4	0	0	0	0	0	0	0	4	4	26.2
	50yr	0	2	2	0	0	0	0	0	0	0	2	2	23.6
057N-058N 049W-048W	100yr	0	5	4	1	0	0	0	0	0	0	5	5	22.7
	50yr	0	2	2	0	0	0	0	0	0	0	2	2	23.6
057N-058N 048W-047W	100yr	1	2	2	0	0	0	0	0	0	0	3	3	20.9
	50yr	1	1	1	0	0	0	0	0	0	0	2	2	23.6
057N-058N 047W-046W	100yr	1	2	2	0	0	0	0	0	0	0	3	3	20.8
	50yr	1	1	1	0	0	0	0	0	0	0	2	2	23.5
057N-058N 046W-045W	100yr	1	3	2	1	0	0	0	0	0	0	4	4	20.6
	50yr	1	3	2	1	0	0	0	0	0	0	4	4	20.6
057N-058N 045W-044W	100yr	0	2	1	1	0	0	0	0	0	0	2	2	17.6
	50yr	0	1	0	1	0	0	0	0	0	0	1	1	15.6
057N-058N 044W-043W	100yr	0	4	2	2	1	1	0	0	0	2	4	6	22.1
	50yr	0	2	0	2	1	0	0	0	0	1	2	3	21.7
057N-058N 043W-042W	100yr	0	6	4	2	1	1	0	0	0	2	6	8	27.2
	50yr	0	3	1	2	1	0	0	0	0	1	3	4	31.3
057N-058N 042W-041W	100yr	0	3	2	1	0	1	0	0	0	1	3	4	31.4
	50yr	0	1	0	1	0	0	0	0	0	0	1	1	53.0
057N-058N 041W-040W	100yr	0	2	2	0	0	1	0	0	0	1	2	3	23.2
	50yr	0	0	0	0	0	0	0	0	0	0	0	0	0.0
057N-058N 038W-037W	100yr	0	1	0	1	0	0	0	0	0	0	1	1	19.0
	50yr	0	1	0	1	0	0	0	0	0	0	1	1	19.0
057N-058N 037W-036W	100yr	0	4	1	3	0	0	0	0	0	0	4	4	23.1
	50yr	0	1	0	1	0	0	0	0	0	0	1	1	15.5
057N-058N 036W-035W	100yr	0	4	1	3	0	0	0	0	0	0	4	4	24.5
	50yr	0	1	0	1	0	0	0	0	0	0	1	1	15.5
057N-058N 035W-034W	100yr	0	7	4	3	0	0	0	0	0	0	7	7	22.8
	50yr	0	2	1	1	0	0	0	0	0	0	2	2	24.9
057N-058N 034W-033W	100yr	0	5	4	1	0	0	0	0	0	0	5	5	18.9
	50yr	0	2	1	1	0	0	0	0	0	0	2	2	24.5
057N-058N 033W-032W	100yr	0	4	2	2	0	0	0	0	0	0	4	4	22.1
	50yr	0	3	1	2	0	0	0	0	0	0	3	3	24.2
057N-058N 032W-031W	100yr	0	4	2	2	0	0	0	0	0	0	4	4	21.6

Grid Cell	TD	TS	G	S	S1	S2	S3	S4	S5	H	<H	All	Spd
50yr	0	2	0	2	0	0	0	0	0	0	2	2	21.5
057N-058N 031W-030W 100yr	0	5	1	4	0	0	0	0	0	0	5	5	23.4
50yr	0	4	0	4	0	0	0	0	0	0	4	4	23.3
057N-058N 030W-029W 100yr	0	5	1	4	0	0	0	0	0	0	5	5	29.3
50yr	0	4	1	3	0	0	0	0	0	0	4	4	26.4
057N-058N 029W-028W 100yr	0	3	0	3	0	0	0	0	0	0	3	3	21.6
50yr	0	2	0	2	0	0	0	0	0	0	2	2	18.3
057N-058N 028W-027W 100yr	0	2	0	2	0	0	0	0	0	0	2	2	16.8
50yr	0	1	0	1	0	0	0	0	0	0	1	1	18.3
057N-058N 027W-026W 100yr	0	2	0	2	0	0	0	0	0	0	2	2	36.0
50yr	0	2	0	2	0	0	0	0	0	0	2	2	36.0
057N-058N 026W-025W 100yr	0	1	0	1	0	1	0	0	0	1	1	2	28.6
50yr	0	1	0	1	0	1	0	0	0	1	1	2	28.6
057N-058N 025W-024W 100yr	0	1	0	1	0	1	0	0	0	1	1	2	29.9
50yr	0	1	0	1	0	1	0	0	0	1	1	2	29.9
057N-058N 024W-023W 100yr	0	1	0	1	0	1	0	0	0	1	1	2	28.9
50yr	0	1	0	1	0	1	0	0	0	1	1	2	28.9
057N-058N 023W-022W 100yr	0	1	0	1	0	1	0	0	0	1	1	2	33.6
50yr	0	1	0	1	0	1	0	0	0	1	1	2	33.6
057N-058N 022W-021W 100yr	0	1	0	1	0	1	0	0	0	1	1	2	33.6
50yr	0	1	0	1	0	1	0	0	0	1	1	2	33.6
057N-058N 017W-016W 100yr	0	1	0	1	0	0	0	0	0	0	1	1	23.7
50yr	0	1	0	1	0	0	0	0	0	0	1	1	23.7
057N-058N 016W-015W 100yr	0	1	0	1	0	0	0	0	0	0	1	1	23.7
50yr	0	1	0	1	0	0	0	0	0	0	1	1	23.7
057N-058N 013W-012W 100yr	1	1	0	1	0	0	0	0	0	0	2	2	20.9
50yr	1	1	0	1	0	0	0	0	0	0	2	2	20.9
057N-058N 012W-011W 100yr	1	1	0	1	0	0	0	0	0	0	2	2	20.9
50yr	1	1	0	1	0	0	0	0	0	0	2	2	20.9
057N-058N 011W-010W 100yr	0	1	0	1	0	0	0	0	0	0	1	1	31.7
50yr	0	1	0	1	0	0	0	0	0	0	1	1	31.7
057N-058N 008W-007W 100yr	0	1	1	0	0	0	0	0	0	0	1	1	34.3
50yr	0	1	1	0	0	0	0	0	0	0	1	1	34.3
057N-058N 007W-006W 100yr	0	1	1	0	0	0	0	0	0	0	1	1	37.8
50yr	0	1	1	0	0	0	0	0	0	0	1	1	37.8
057N-058N 006W-005W 100yr	0	1	1	0	0	0	0	0	0	0	1	1	37.8
50yr	0	1	1	0	0	0	0	0	0	0	1	1	37.8
057N-058N 004E-005E 100yr	1	0	0	0	0	0	0	0	0	0	1	1	2.3
50yr	1	0	0	0	0	0	0	0	0	0	1	1	2.3
057N-058N 005E-006E 100yr	0	1	1	0	0	0	0	0	0	0	1	1	2.3
50yr	0	1	1	0	0	0	0	0	0	0	1	1	2.3
057N-058N 006E-007E 100yr	0	1	1	0	0	0	0	0	0	0	1	1	2.3
50yr	0	1	1	0	0	0	0	0	0	0	1	1	2.3

058°N to 059°N

Grid Cell	TD	TS	G	S	S1	S2	S3	S4	S5	H	<H	All	Spd
058N-059N 070W-069W 100yr	1	0	0	0	0	0	0	0	0	0	1	1	22.9

Grid Cell	TD	TS	G	S	S1	S2	S3	S4	S5	H	<H	All	Spd
50yr	1	0	0	0	0	0	0	0	0	0	1	1	22.9
058N-059N 069W-068W 100yr	1	0	0	0	0	0	0	0	0	0	1	1	23.6
50yr	1	0	0	0	0	0	0	0	0	0	1	1	23.6
058N-059N 068W-067W 100yr	1	0	0	0	0	0	0	0	0	0	1	1	23.6
50yr	1	0	0	0	0	0	0	0	0	0	1	1	23.6
058N-059N 067W-066W 100yr	1	0	0	0	0	0	0	0	0	0	1	1	23.6
50yr	1	0	0	0	0	0	0	0	0	0	1	1	23.6
058N-059N 066W-065W 100yr	2	0	0	0	0	0	0	0	0	0	2	2	28.1
50yr	2	0	0	0	0	0	0	0	0	0	2	2	28.1
058N-059N 056W-055W 100yr	0	1	1	0	0	0	0	0	0	0	1	1	27.3
50yr	0	1	1	0	0	0	0	0	0	0	1	1	27.3
058N-059N 055W-054W 100yr	0	2	2	0	0	0	0	0	0	0	2	2	20.1
50yr	0	2	2	0	0	0	0	0	0	0	2	2	20.1
058N-059N 054W-053W 100yr	0	1	1	0	0	0	0	0	0	0	1	1	11.8
50yr	0	1	1	0	0	0	0	0	0	0	1	1	11.8
058N-059N 053W-052W 100yr	0	2	2	0	0	0	0	0	0	0	2	2	20.6
50yr	0	2	2	0	0	0	0	0	0	0	2	2	20.6
058N-059N 052W-051W 100yr	0	2	2	0	0	0	0	0	0	0	2	2	20.4
50yr	0	2	2	0	0	0	0	0	0	0	2	2	20.4
058N-059N 051W-050W 100yr	0	2	2	0	0	0	0	0	0	0	2	2	25.7
50yr	0	1	1	0	0	0	0	0	0	0	1	1	9.8
058N-059N 050W-049W 100yr	0	3	3	0	0	0	0	0	0	0	3	3	26.4
50yr	0	1	1	0	0	0	0	0	0	0	1	1	8.9
058N-059N 049W-048W 100yr	0	2	1	1	0	0	0	0	0	0	2	2	24.4
50yr	0	0	0	0	0	0	0	0	0	0	0	0	0.0
058N-059N 048W-047W 100yr	0	2	1	1	0	0	0	0	0	0	2	2	24.0
50yr	0	0	0	0	0	0	0	0	0	0	0	0	0.0
058N-059N 047W-046W 100yr	0	2	2	0	0	0	0	0	0	0	2	2	26.8
50yr	0	1	1	0	0	0	0	0	0	0	1	1	38.3
058N-059N 046W-045W 100yr	0	2	2	0	0	0	0	0	0	0	2	2	26.8
50yr	0	1	1	0	0	0	0	0	0	0	1	1	38.3
058N-059N 045W-044W 100yr	0	2	1	1	0	0	0	0	0	0	2	2	14.1
50yr	0	1	0	1	0	0	0	0	0	0	1	1	13.0
058N-059N 044W-043W 100yr	0	1	0	1	1	0	0	0	0	1	1	2	18.2
50yr	0	1	0	1	1	0	0	0	0	1	1	2	18.2
058N-059N 043W-042W 100yr	0	4	3	1	1	0	0	0	0	1	4	5	18.0
50yr	0	3	2	1	1	0	0	0	0	1	3	4	17.6
058N-059N 042W-041W 100yr	0	5	3	2	0	0	0	0	0	0	5	5	24.7
50yr	0	3	1	2	0	0	0	0	0	0	3	3	29.9
058N-059N 041W-040W 100yr	0	4	3	1	0	1	0	0	0	1	4	5	30.1
50yr	0	1	0	1	0	0	0	0	0	0	1	1	53.0
058N-059N 040W-039W 100yr	0	3	3	0	0	1	0	0	0	1	3	4	25.2
50yr	0	0	0	0	0	0	0	0	0	0	0	0	0.0
058N-059N 039W-038W 100yr	0	1	1	0	0	1	0	0	0	1	1	2	25.2
50yr	0	0	0	0	0	0	0	0	0	0	0	0	0.0
058N-059N 038W-037W 100yr	0	0	0	0	0	1	0	0	0	1	0	1	41.4
50yr	0	0	0	0	0	0	0	0	0	0	0	0	0.0
058N-059N 037W-036W 100yr	0	1	1	0	0	0	0	0	0	0	1	1	16.8

Grid Cell		TD	TS	G	S	S1	S2	S3	S4	S5	H	<H	All	Spd
	50yr	0	0	0	0	0	0	0	0	0	0	0	0	0.0
058N-059N 036W-035W	100yr	0	1	1	0	0	0	0	0	0	0	1	1	16.8
	50yr	0	0	0	0	0	0	0	0	0	0	0	0	0.0
058N-059N 035W-034W	100yr	0	2	0	2	0	0	0	0	0	0	2	2	31.9
	50yr	0	0	0	0	0	0	0	0	0	0	0	0	0.0
058N-059N 034W-033W	100yr	0	3	1	2	0	0	0	0	0	0	3	3	27.8
	50yr	0	0	0	0	0	0	0	0	0	0	0	0	0.0
058N-059N 033W-032W	100yr	0	3	2	1	0	0	0	0	0	0	3	3	29.4
	50yr	0	1	1	0	0	0	0	0	0	0	1	1	31.7
058N-059N 032W-031W	100yr	0	4	2	2	0	0	0	0	0	0	4	4	29.1
	50yr	0	2	1	1	0	0	0	0	0	0	2	2	29.8
058N-059N 031W-030W	100yr	0	4	2	2	0	0	0	0	0	0	4	4	26.7
	50yr	0	1	0	1	0	0	0	0	0	0	1	1	27.9
058N-059N 030W-029W	100yr	0	4	2	2	0	0	0	0	0	0	4	4	24.8
	50yr	0	2	0	2	0	0	0	0	0	0	2	2	28.6
058N-059N 029W-028W	100yr	0	3	0	3	0	0	0	0	0	0	3	3	25.4
	50yr	0	3	0	3	0	0	0	0	0	0	3	3	25.4
058N-059N 028W-027W	100yr	0	3	0	3	0	0	0	0	0	0	3	3	21.5
	50yr	0	2	0	2	0	0	0	0	0	0	2	2	24.6
058N-059N 027W-026W	100yr	0	1	0	1	0	0	0	0	0	0	1	1	13.4
	50yr	0	0	0	0	0	0	0	0	0	0	0	0	0.0
058N-059N 026W-025W	100yr	0	1	0	1	0	0	0	0	0	0	1	1	11.5
	50yr	0	0	0	0	0	0	0	0	0	0	0	0	0.0
058N-059N 024W-023W	100yr	0	1	0	1	0	0	0	0	0	0	1	1	36.8
	50yr	0	1	0	1	0	0	0	0	0	0	1	1	36.8
058N-059N 023W-022W	100yr	0	1	0	1	0	0	0	0	0	0	1	1	36.8
	50yr	0	1	0	1	0	0	0	0	0	0	1	1	36.8
058N-059N 022W-021W	100yr	0	0	0	0	0	1	0	0	0	1	0	1	30.4
	50yr	0	0	0	0	0	1	0	0	0	1	0	1	30.4
058N-059N 021W-020W	100yr	0	0	0	0	0	1	0	0	0	1	0	1	30.4
	50yr	0	0	0	0	0	1	0	0	0	1	0	1	30.4
058N-059N 020W-019W	100yr	0	0	0	0	0	1	0	0	0	1	0	1	35.8
	50yr	0	0	0	0	0	1	0	0	0	1	0	1	35.8
058N-059N 019W-018W	100yr	0	0	0	0	0	1	0	0	0	1	0	1	41.2
	50yr	0	0	0	0	0	1	0	0	0	1	0	1	41.2
058N-059N 018W-017W	100yr	0	1	1	0	0	0	0	0	0	0	1	1	27.1
	50yr	0	1	1	0	0	0	0	0	0	0	1	1	27.1
058N-059N 017W-016W	100yr	0	1	1	0	0	0	0	0	0	0	1	1	27.1
	50yr	0	1	1	0	0	0	0	0	0	0	1	1	27.1
058N-059N 011W-010W	100yr	0	1	0	1	0	0	0	0	0	0	1	1	31.7
	50yr	0	1	0	1	0	0	0	0	0	0	1	1	31.7
058N-059N 007W-006W	100yr	0	1	1	0	0	0	0	0	0	0	1	1	37.8
	50yr	0	1	1	0	0	0	0	0	0	0	1	1	37.8
058N-059N 006W-005W	100yr	0	1	1	0	0	0	0	0	0	0	1	1	37.8
	50yr	0	1	1	0	0	0	0	0	0	0	1	1	37.8

059°N to 060°N

Grid Cell	TD	TS	G	S	S1	S2	S3	S4	S5	H	<H	All	Spd
059N-060N 066W-065W 100yr	1	0	0	0	0	0	0	0	0	0	1	1	32.6
50yr	1	0	0	0	0	0	0	0	0	0	1	1	32.6
059N-060N 065W-064W 100yr	1	0	0	0	0	0	0	0	0	0	1	1	32.6
50yr	1	0	0	0	0	0	0	0	0	0	1	1	32.6
059N-060N 055W-054W 100yr	0	1	1	0	0	0	0	0	0	0	1	1	26.3
50yr	0	1	1	0	0	0	0	0	0	0	1	1	26.3
059N-060N 054W-053W 100yr	0	1	1	0	0	0	0	0	0	0	1	1	25.2
50yr	0	1	1	0	0	0	0	0	0	0	1	1	25.2
059N-060N 053W-052W 100yr	0	1	1	0	0	0	0	0	0	0	1	1	25.3
50yr	0	1	1	0	0	0	0	0	0	0	1	1	25.3
059N-060N 052W-051W 100yr	0	1	1	0	0	0	0	0	0	0	1	1	25.3
50yr	0	1	1	0	0	0	0	0	0	0	1	1	25.3
059N-060N 050W-049W 100yr	0	1	1	0	0	0	0	0	0	0	1	1	41.6
50yr	0	0	0	0	0	0	0	0	0	0	0	0	0.0
059N-060N 049W-048W 100yr	0	1	1	0	0	0	0	0	0	0	1	1	41.6
50yr	0	0	0	0	0	0	0	0	0	0	0	0	0.0
059N-060N 048W-047W 100yr	0	2	2	0	0	0	0	0	0	0	2	2	23.4
50yr	0	0	0	0	0	0	0	0	0	0	0	0	0.0
059N-060N 047W-046W 100yr	0	1	1	0	0	0	0	0	0	0	1	1	28.3
50yr	0	0	0	0	0	0	0	0	0	0	0	0	0.0
059N-060N 045W-044W 100yr	0	1	1	0	0	0	0	0	0	0	1	1	15.2
50yr	0	0	0	0	0	0	0	0	0	0	0	0	0.0
059N-060N 044W-043W 100yr	0	1	1	0	0	0	0	0	0	0	1	1	15.1
50yr	0	0	0	0	0	0	0	0	0	0	0	0	0.0
059N-060N 043W-042W 100yr	0	3	2	1	0	0	0	0	0	0	3	3	12.5
50yr	0	2	1	1	0	0	0	0	0	0	2	2	11.3
059N-060N 042W-041W 100yr	0	3	2	1	0	0	0	0	0	0	3	3	13.0
50yr	0	3	2	1	0	0	0	0	0	0	3	3	13.0
059N-060N 041W-040W 100yr	0	5	3	2	0	0	0	0	0	0	5	5	22.7
50yr	0	4	2	2	0	0	0	0	0	0	4	4	21.5
059N-060N 040W-039W 100yr	0	4	2	2	0	0	0	0	0	0	4	4	25.3
50yr	0	3	1	2	0	0	0	0	0	0	3	3	24.5
059N-060N 039W-038W 100yr	0	3	2	1	0	0	0	0	0	0	3	3	34.1
50yr	0	1	0	1	0	0	0	0	0	0	1	1	53.0
059N-060N 038W-037W 100yr	0	2	2	0	0	1	0	0	0	1	2	3	31.1
50yr	0	0	0	0	0	0	0	0	0	0	0	0	0.0
059N-060N 037W-036W 100yr	0	2	2	0	0	1	0	0	0	1	2	3	31.9
50yr	0	0	0	0	0	0	0	0	0	0	0	0	0.0
059N-060N 036W-035W 100yr	0	0	0	0	0	1	0	0	0	1	0	1	41.4
50yr	0	0	0	0	0	0	0	0	0	0	0	0	0.0
059N-060N 034W-033W 100yr	0	1	0	1	0	0	0	0	0	0	1	1	26.9
50yr	0	0	0	0	0	0	0	0	0	0	0	0	0.0
059N-060N 033W-032W 100yr	0	1	0	1	0	0	0	0	0	0	1	1	26.9
50yr	0	0	0	0	0	0	0	0	0	0	0	0	0.0

Grid Cell	TD	TS	G	S	S1	S2	S3	S4	S5	H	<H	All	Spd
059N-060N 032W-031W 100yr	0	2	1	1	0	0	0	0	0	0	2	2	29.3
50yr	0	1	1	0	0	0	0	0	0	0	1	1	31.7
059N-060N 031W-030W 100yr	0	2	1	1	0	0	0	0	0	0	2	2	35.0
50yr	0	1	1	0	0	0	0	0	0	0	1	1	33.0
059N-060N 030W-029W 100yr	0	3	2	1	0	0	0	0	0	0	3	3	30.7
50yr	0	1	1	0	0	0	0	0	0	0	1	1	34.3
059N-060N 029W-028W 100yr	0	3	1	2	0	0	0	0	0	0	3	3	28.3
50yr	0	1	0	1	0	0	0	0	0	0	1	1	28.1
059N-060N 028W-027W 100yr	0	4	1	3	0	0	0	0	0	0	4	4	28.5
50yr	0	2	0	2	0	0	0	0	0	0	2	2	29.0
059N-060N 027W-026W 100yr	0	2	1	1	0	0	0	0	0	0	2	2	29.7
50yr	0	2	1	1	0	0	0	0	0	0	2	2	29.7
059N-060N 026W-025W 100yr	0	2	0	2	0	0	0	0	0	0	2	2	20.9
50yr	0	1	0	1	0	0	0	0	0	0	1	1	30.3
059N-060N 025W-024W 100yr	0	2	0	2	0	0	0	0	0	0	2	2	21.1
50yr	0	1	0	1	0	0	0	0	0	0	1	1	30.6
059N-060N 024W-023W 100yr	0	3	0	3	0	0	0	0	0	0	3	3	26.4
50yr	0	2	0	2	0	0	0	0	0	0	2	2	33.7
059N-060N 023W-022W 100yr	0	2	0	2	0	0	0	0	0	0	2	2	21.1
50yr	0	1	0	1	0	0	0	0	0	0	1	1	30.6
059N-060N 022W-021W 100yr	0	1	0	1	0	0	0	0	0	0	1	1	30.6
50yr	0	1	0	1	0	0	0	0	0	0	1	1	30.6
059N-060N 021W-020W 100yr	0	1	0	1	0	0	0	0	0	0	1	1	30.3
50yr	0	1	0	1	0	0	0	0	0	0	1	1	30.3
059N-060N 020W-019W 100yr	0	1	0	1	0	0	0	0	0	0	1	1	30.3
50yr	0	1	0	1	0	0	0	0	0	0	1	1	30.3
059N-060N 019W-018W 100yr	0	2	2	0	0	1	0	0	0	1	2	3	30.6
50yr	0	2	2	0	0	1	0	0	0	1	2	3	30.6
059N-060N 018W-017W 100yr	0	2	2	0	0	1	0	0	0	1	2	3	30.6
50yr	0	2	2	0	0	1	0	0	0	1	2	3	30.6
059N-060N 017W-016W 100yr	0	1	1	0	0	1	0	0	0	1	1	2	35.6
50yr	0	1	1	0	0	1	0	0	0	1	1	2	35.6
059N-060N 016W-015W 100yr	0	1	1	0	0	1	0	0	0	1	1	2	35.6
50yr	0	1	1	0	0	1	0	0	0	1	1	2	35.6
059N-060N 015W-014W 100yr	0	1	1	0	0	1	0	0	0	1	1	2	36.2
50yr	0	1	1	0	0	1	0	0	0	1	1	2	36.2
059N-060N 014W-013W 100yr	0	1	1	0	0	1	0	0	0	1	1	2	36.2
50yr	0	1	1	0	0	1	0	0	0	1	1	2	36.2
059N-060N 013W-012W 100yr	0	1	1	0	0	0	0	0	0	0	1	1	32.5
50yr	0	1	1	0	0	0	0	0	0	0	1	1	32.5
059N-060N 012W-011W 100yr	0	1	1	0	0	0	0	0	0	0	1	1	32.5
50yr	0	1	1	0	0	0	0	0	0	0	1	1	32.5
059N-060N 011W-010W 100yr	0	2	1	1	0	0	0	0	0	0	2	2	31.3
50yr	0	2	1	1	0	0	0	0	0	0	2	2	31.3
059N-060N 010W-009W 100yr	0	1	1	0	0	0	0	0	0	0	1	1	32.5
50yr	0	1	1	0	0	0	0	0	0	0	1	1	32.5
059N-060N 009W-008W 100yr	0	1	1	0	0	0	0	0	0	0	1	1	32.5
50yr	0	1	1	0	0	0	0	0	0	0	1	1	32.5

Grid Cell	TD	TS	G	S	S1	S2	S3	S4	S5	H	<H	All	Spd
059N-060N 008W-007W 100yr	0	1	1	0	0	0	0	0	0	0	1	1	33.8
50yr	0	1	1	0	0	0	0	0	0	0	1	1	33.8
059N-060N 006W-005W 100yr	0	1	1	0	0	0	0	0	0	0	1	1	41.3
50yr	0	1	1	0	0	0	0	0	0	0	1	1	41.3
059N-060N 005W-004W 100yr	0	1	1	0	0	0	0	0	0	0	1	1	41.3
50yr	0	1	1	0	0	0	0	0	0	0	1	1	41.3

Grid Cell	TD	TS	G	S	S1	S2	S3	S4	S5	H	<H	All	Spd

Grid Cell	TD	TS	G	S	S1	S2	S3	S4	S5	H	<H	All	Spd

060°N to 061°N

Grid Cell	TD	TS	G	S	S1	S2	S3	S4	S5	H	<H	All	Spd
060N-061N 066W-065W 100yr	1	0	0	0	0	0	0	0	0	0	1	1	32.6
50yr	1	0	0	0	0	0	0	0	0	0	1	1	32.6
060N-061N 065W-064W 100yr	1	0	0	0	0	0	0	0	0	0	1	1	32.6
50yr	1	0	0	0	0	0	0	0	0	0	1	1	32.6
060N-061N 054W-053W 100yr	0	1	1	0	0	0	0	0	0	0	1	1	25.2
50yr	0	1	1	0	0	0	0	0	0	0	1	1	25.2
060N-061N 053W-052W 100yr	0	2	2	0	0	0	0	0	0	0	2	2	25.3
50yr	0	2	2	0	0	0	0	0	0	0	2	2	25.3
060N-061N 052W-051W 100yr	0	1	1	0	0	0	0	0	0	0	1	1	25.3
50yr	0	1	1	0	0	0	0	0	0	0	1	1	25.3
060N-061N 049W-048W 100yr	0	1	1	0	0	0	0	0	0	0	1	1	41.6
50yr	0	0	0	0	0	0	0	0	0	0	0	0	0.0
060N-061N 048W-047W 100yr	0	1	1	0	0	0	0	0	0	0	1	1	18.2
50yr	0	0	0	0	0	0	0	0	0	0	0	0	0.0
060N-061N 047W-046W 100yr	0	1	1	0	0	0	0	0	0	0	1	1	28.3
50yr	0	0	0	0	0	0	0	0	0	0	0	0	0.0
060N-061N 046W-045W 100yr	0	1	1	0	0	0	0	0	0	0	1	1	28.3
50yr	0	0	0	0	0	0	0	0	0	0	0	0	0.0
060N-061N 043W-042W 100yr	0	1	1	0	0	0	0	0	0	0	1	1	14.9
50yr	0	0	0	0	0	0	0	0	0	0	0	0	0.0
060N-061N 042W-041W 100yr	0	2	2	0	0	0	0	0	0	0	2	2	13.7
50yr	0	1	1	0	0	0	0	0	0	0	1	1	12.4
060N-061N 041W-040W 100yr	0	3	2	1	0	0	0	0	0	0	3	3	9.9
50yr	0	3	2	1	0	0	0	0	0	0	3	3	9.9
060N-061N 040W-039W 100yr	0	2	1	1	0	0	0	0	0	0	2	2	10.3
50yr	0	2	1	1	0	0	0	0	0	0	2	2	10.3
060N-061N 039W-038W 100yr	0	2	1	1	0	0	0	0	0	0	2	2	30.0
50yr	0	2	1	1	0	0	0	0	0	0	2	2	30.0
060N-061N 038W-037W 100yr	0	2	1	1	0	0	0	0	0	0	2	2	44.5
50yr	0	1	0	1	0	0	0	0	0	0	1	1	53.0
060N-061N 037W-036W 100yr	0	2	2	0	0	0	0	0	0	0	2	2	27.2
50yr	0	0	0	0	0	0	0	0	0	0	0	0	0.0
060N-061N 036W-035W 100yr	0	2	2	0	0	1	0	0	0	1	2	3	31.9
50yr	0	0	0	0	0	0	0	0	0	0	0	0	0.0

Grid Cell	TD	TS	G	S	S1	S2	S3	S4	S5	H	<H	All	Spd
060N-061N 035W-034W 100yr	0	1	1	0	0	1	0	0	0	1	1	2	38.7
50yr	0	0	0	0	0	0	0	0	0	0	0	0	0.0
060N-061N 034W-033W 100yr	0	1	1	0	0	1	0	0	0	1	1	2	38.7
50yr	0	0	0	0	0	0	0	0	0	0	0	0	0.0
060N-061N 033W-032W 100yr	0	1	0	1	0	1	0	0	0	1	1	2	34.2
50yr	0	0	0	0	0	0	0	0	0	0	0	0	0.0
060N-061N 032W-031W 100yr	0	1	0	1	0	0	0	0	0	0	1	1	26.9
50yr	0	0	0	0	0	0	0	0	0	0	0	0	0.0
060N-061N 030W-029W 100yr	0	1	1	0	0	0	0	0	0	0	1	1	34.3
50yr	0	1	1	0	0	0	0	0	0	0	1	1	34.3
060N-061N 029W-028W 100yr	0	1	1	0	0	0	0	0	0	0	1	1	34.3
50yr	0	1	1	0	0	0	0	0	0	0	1	1	34.3
060N-061N 028W-027W 100yr	0	3	2	1	0	0	0	0	0	0	3	3	30.0
50yr	0	1	1	0	0	0	0	0	0	0	1	1	34.3
060N-061N 027W-026W 100yr	0	2	1	1	0	0	0	0	0	0	2	2	32.0
50yr	0	1	1	0	0	0	0	0	0	0	1	1	29.0
060N-061N 026W-025W 100yr	0	2	1	1	0	0	0	0	0	0	2	2	32.0
50yr	0	1	1	0	0	0	0	0	0	0	1	1	29.0
060N-061N 025W-024W 100yr	0	2	1	1	0	0	0	0	0	0	2	2	32.0
50yr	0	1	1	0	0	0	0	0	0	0	1	1	29.0
060N-061N 024W-023W 100yr	0	2	1	1	0	0	0	0	0	0	2	2	32.0
50yr	0	1	1	0	0	0	0	0	0	0	1	1	29.0
060N-061N 023W-022W 100yr	0	2	2	0	0	0	0	0	0	0	2	2	20.1
50yr	0	1	1	0	0	0	0	0	0	0	1	1	29.0
060N-061N 022W-021W 100yr	0	1	1	0	0	0	0	0	0	0	1	1	11.2
50yr	0	0	0	0	0	0	0	0	0	0	0	0	0.0
060N-061N 021W-020W 100yr	0	3	2	1	0	0	0	0	0	0	3	3	18.5
50yr	0	2	1	1	0	0	0	0	0	0	2	2	22.1
060N-061N 020W-019W 100yr	0	2	1	1	0	0	0	0	0	0	2	2	22.1
50yr	0	2	1	1	0	0	0	0	0	0	2	2	22.1
060N-061N 019W-018W 100yr	0	2	2	0	0	0	0	0	0	0	2	2	25.3
50yr	0	2	2	0	0	0	0	0	0	0	2	2	25.3
060N-061N 018W-017W 100yr	0	2	2	0	0	0	0	0	0	0	2	2	25.3
50yr	0	2	2	0	0	0	0	0	0	0	2	2	25.3
060N-061N 017W-016W 100yr	0	1	1	0	0	0	0	0	0	0	1	1	30.0
50yr	0	1	1	0	0	0	0	0	0	0	1	1	30.0
060N-061N 016W-015W 100yr	0	1	1	0	0	0	0	0	0	0	1	1	30.0
50yr	0	1	1	0	0	0	0	0	0	0	1	1	30.0
060N-061N 015W-014W 100yr	0	1	1	0	0	0	0	0	0	0	1	1	31.3
50yr	0	1	1	0	0	0	0	0	0	0	1	1	31.3
060N-061N 014W-013W 100yr	0	1	1	0	0	1	0	0	0	1	1	2	36.2
50yr	0	1	1	0	0	1	0	0	0	1	1	2	36.2
060N-061N 013W-012W 100yr	0	1	1	0	0	1	0	0	0	1	1	2	34.1
50yr	0	1	1	0	0	1	0	0	0	1	1	2	34.1
060N-061N 012W-011W 100yr	0	1	1	0	0	1	0	0	0	1	1	2	34.1
50yr	0	1	1	0	0	1	0	0	0	1	1	2	34.1
060N-061N 011W-010W 100yr	0	2	1	1	0	1	0	0	0	1	2	3	31.6
50yr	0	2	1	1	0	1	0	0	0	1	2	3	31.6

Grid Cell		TD	TS	G	S	S1	S2	S3	S4	S5	H	<H	All	Spd
060N-061N 010W-009W	100yr	0	2	1	1	0	1	0	0	0	1	2	3	31.6
	50yr	0	2	1	1	0	1	0	0	0	1	2	3	31.6
060N-061N 009W-008W	100yr	0	1	1	0	0	1	0	0	0	1	1	2	31.3
	50yr	0	1	1	0	0	1	0	0	0	1	1	2	31.3
060N-061N 008W-007W	100yr	0	1	1	0	0	1	0	0	0	1	1	2	32.0
	50yr	0	1	1	0	0	1	0	0	0	1	1	2	32.0
060N-061N 007W-006W	100yr	0	1	1	0	0	1	0	0	0	1	1	2	32.6
	50yr	0	1	1	0	0	1	0	0	0	1	1	2	32.6
060N-061N 006W-005W	100yr	0	2	2	0	0	0	0	0	0	0	2	2	38.2
	50yr	0	2	2	0	0	0	0	0	0	0	2	2	38.2
060N-061N 005W-004W	100yr	0	2	2	0	0	0	0	0	0	0	2	2	38.2
	50yr	0	2	2	0	0	0	0	0	0	0	2	2	38.2
060N-061N 004W-003W	100yr	0	1	1	0	0	0	0	0	0	0	1	1	35.1
	50yr	0	1	1	0	0	0	0	0	0	0	1	1	35.1

061°N to 062°N

Grid Cell		TD	TS	G	S	S1	S2	S3	S4	S5	H	<H	All	Spd
061N-062N 054W-053W	100yr	0	1	1	0	0	0	0	0	0	0	1	1	21.3
	50yr	0	1	1	0	0	0	0	0	0	0	1	1	21.3
061N-062N 053W-052W	100yr	0	2	2	0	0	0	0	0	0	0	2	2	23.3
	50yr	0	2	2	0	0	0	0	0	0	0	2	2	23.3
061N-062N 052W-051W	100yr	0	1	1	0	0	0	0	0	0	0	1	1	25.2
	50yr	0	1	1	0	0	0	0	0	0	0	1	1	25.2
061N-062N 046W-045W	100yr	0	1	1	0	0	0	0	0	0	0	1	1	28.3
	50yr	0	0	0	0	0	0	0	0	0	0	0	0	0.0
061N-062N 045W-044W	100yr	0	1	1	0	0	0	0	0	0	0	1	1	28.3
	50yr	0	0	0	0	0	0	0	0	0	0	0	0	0.0
061N-062N 041W-040W	100yr	0	1	1	0	0	0	0	0	0	0	1	1	5.0
	50yr	0	1	1	0	0	0	0	0	0	0	1	1	5.0
061N-062N 036W-035W	100yr	0	1	1	0	0	0	0	0	0	0	1	1	18.3
	50yr	0	0	0	0	0	0	0	0	0	0	0	0	0.0
061N-062N 035W-034W	100yr	0	2	2	0	0	0	0	0	0	0	2	2	27.2
	50yr	0	0	0	0	0	0	0	0	0	0	0	0	0.0
061N-062N 034W-033W	100yr	0	1	1	0	0	0	0	0	0	0	1	1	36.1
	50yr	0	0	0	0	0	0	0	0	0	0	0	0	0.0
061N-062N 033W-032W	100yr	0	0	0	0	0	1	0	0	0	1	0	1	41.4
	50yr	0	0	0	0	0	0	0	0	0	0	0	0	0.0
061N-062N 028W-027W	100yr	0	1	1	0	0	0	0	0	0	0	1	1	34.3
	50yr	0	1	1	0	0	0	0	0	0	0	1	1	34.3
061N-062N 027W-026W	100yr	0	1	1	0	0	0	0	0	0	0	1	1	34.3
	50yr	0	1	1	0	0	0	0	0	0	0	1	1	34.3
061N-062N 026W-025W	100yr	0	1	1	0	0	0	0	0	0	0	1	1	35.5
	50yr	0	1	1	0	0	0	0	0	0	0	1	1	35.5
061N-062N 024W-023W	100yr	0	2	1	1	0	0	0	0	0	0	2	2	32.0
	50yr	0	1	1	0	0	0	0	0	0	0	1	1	29.0
061N-062N 023W-022W	100yr	0	3	2	1	0	0	0	0	0	0	3	3	25.4
	50yr	0	2	2	0	0	0	0	0	0	0	2	2	20.6

Grid Cell	TD	TS	G	S	S1	S2	S3	S4	S5	H	<H	All	Spd
061N-062N 022W-021W 100yr	0	1	1	0	0	0	0	0	0	0	1	1	12.2
50yr	0	1	1	0	0	0	0	0	0	0	1	1	12.2
061N-062N 021W-020W 100yr	0	1	1	0	0	0	0	0	0	0	1	1	13.9
50yr	0	1	1	0	0	0	0	0	0	0	1	1	13.9
061N-062N 020W-019W 100yr	0	1	1	0	0	0	0	0	0	0	1	1	13.9
50yr	0	1	1	0	0	0	0	0	0	0	1	1	13.9
061N-062N 011W-010W 100yr	0	1	0	1	0	0	0	0	0	0	1	1	32.2
50yr	0	1	0	1	0	0	0	0	0	0	1	1	32.2
061N-062N 010W-009W 100yr	0	1	0	1	0	0	0	0	0	0	1	1	32.2
50yr	0	1	0	1	0	0	0	0	0	0	1	1	32.2
061N-062N 009W-008W 100yr	0	1	0	1	0	0	0	0	0	0	1	1	34.2
50yr	0	1	0	1	0	0	0	0	0	0	1	1	34.2
061N-062N 008W-007W 100yr	0	1	0	1	0	0	0	0	0	0	1	1	34.2
50yr	0	1	0	1	0	0	0	0	0	0	1	1	34.2
061N-062N 007W-006W 100yr	0	0	0	0	0	1	0	0	0	1	0	1	25.0
50yr	0	0	0	0	0	1	0	0	0	1	0	1	25.0
061N-062N 006W-005W 100yr	0	0	0	0	0	1	0	0	0	1	0	1	25.0
50yr	0	0	0	0	0	1	0	0	0	1	0	1	25.0
061N-062N 005W-004W 100yr	0	1	1	0	1	0	0	0	0	1	1	2	30.6
50yr	0	1	1	0	1	0	0	0	0	1	1	2	30.6
061N-062N 004W-003W 100yr	0	2	2	0	0	0	0	0	0	0	2	2	38.2
50yr	0	2	2	0	0	0	0	0	0	0	2	2	38.2
061N-062N 003W-002W 100yr	0	1	1	0	0	0	0	0	0	0	1	1	35.1
50yr	0	1	1	0	0	0	0	0	0	0	1	1	35.1
061N-062N 002W-001W 100yr	0	1	1	0	0	0	0	0	0	0	1	1	35.1
50yr	0	1	1	0	0	0	0	0	0	0	1	1	35.1
061N-062N 001W-000W 100yr	0	1	1	0	0	0	0	0	0	0	1	1	35.1
50yr	0	1	1	0	0	0	0	0	0	0	1	1	35.1

062°N to 063°N

062N-063N 055W-054W 100yr	0	1	1	0	0	0	0	0	0	0	1	1	22.0
50yr	0	1	1	0	0	0	0	0	0	0	1	1	22.0
062N-063N 054W-053W 100yr	0	1	1	0	0	0	0	0	0	0	1	1	21.3
50yr	0	1	1	0	0	0	0	0	0	0	1	1	21.3
062N-063N 053W-052W 100yr	0	1	1	0	0	0	0	0	0	0	1	1	21.3
50yr	0	1	1	0	0	0	0	0	0	0	1	1	21.3
062N-063N 046W-045W 100yr	0	1	1	0	0	0	0	0	0	0	1	1	28.3
50yr	0	0	0	0	0	0	0	0	0	0	0	0	0.0
062N-063N 045W-044W 100yr	0	1	1	0	0	0	0	0	0	0	1	1	28.3
50yr	0	0	0	0	0	0	0	0	0	0	0	0	0.0
062N-063N 031W-030W 100yr	0	1	1	0	0	0	0	0	0	0	1	1	4.5
50yr	0	1	1	0	0	0	0	0	0	0	1	1	4.5
062N-063N 030W-029W 100yr	0	1	1	0	0	0	0	0	0	0	1	1	5.7
50yr	0	1	1	0	0	0	0	0	0	0	1	1	5.7
062N-063N 029W-028W 100yr	0	1	1	0	0	0	0	0	0	0	1	1	8.0
50yr	0	1	1	0	0	0	0	0	0	0	1	1	8.0

Grid Cell	TD	TS	G	S	S1	S2	S3	S4	S5	H	<H	All	Spd
062N-063N 028W-027W 100yr	0	1	1	0	0	0	0	0	0	0	1	1	8.0
50yr	0	1	1	0	0	0	0	0	0	0	1	1	8.0
062N-063N 027W-026W 100yr	0	1	1	0	0	0	0	0	0	0	1	1	9.8
50yr	0	1	1	0	0	0	0	0	0	0	1	1	9.8
062N-063N 026W-025W 100yr	0	2	2	0	0	0	0	0	0	0	2	2	22.6
50yr	0	2	2	0	0	0	0	0	0	0	2	2	22.6
062N-063N 025W-024W 100yr	0	2	2	0	0	0	0	0	0	0	2	2	23.6
50yr	0	2	2	0	0	0	0	0	0	0	2	2	23.6
062N-063N 024W-023W 100yr	0	1	1	0	0	0	0	0	0	0	1	1	10.5
50yr	0	1	1	0	0	0	0	0	0	0	1	1	10.5
062N-063N 023W-022W 100yr	0	1	1	0	0	0	0	0	0	0	1	1	12.2
50yr	0	1	1	0	0	0	0	0	0	0	1	1	12.2
062N-063N 022W-021W 100yr	0	1	1	0	0	0	0	0	0	0	1	1	12.2
50yr	0	1	1	0	0	0	0	0	0	0	1	1	12.2
062N-063N 009W-008W 100yr	0	1	0	1	0	0	0	0	0	0	1	1	34.2
50yr	0	1	0	1	0	0	0	0	0	0	1	1	34.2
062N-063N 008W-007W 100yr	0	1	0	1	0	0	0	0	0	0	1	1	34.2
50yr	0	1	0	1	0	0	0	0	0	0	1	1	34.2
062N-063N 007W-006W 100yr	0	1	0	1	0	0	0	0	0	0	1	1	34.2
50yr	0	1	0	1	0	0	0	0	0	0	1	1	34.2
062N-063N 006W-005W 100yr	0	1	0	1	0	0	0	0	0	0	1	1	34.2
50yr	0	1	0	1	0	0	0	0	0	0	1	1	34.2
062N-063N 005W-004W 100yr	0	1	1	0	1	0	0	0	0	1	1	2	30.6
50yr	0	1	1	0	1	0	0	0	0	1	1	2	30.6
062N-063N 004W-003W 100yr	0	1	1	0	1	0	0	0	0	1	1	2	32.0
50yr	0	1	1	0	1	0	0	0	0	1	1	2	32.0
062N-063N 003W-002W 100yr	0	0	0	0	1	0	0	0	0	1	0	1	22.7
50yr	0	0	0	0	1	0	0	0	0	1	0	1	22.7
062N-063N 002W-001W 100yr	0	1	0	1	0	0	0	0	0	0	1	1	25.4
50yr	0	1	0	1	0	0	0	0	0	0	1	1	25.4
062N-063N 001W-000W 100yr	0	1	0	1	0	0	0	0	0	0	1	1	25.4
50yr	0	1	0	1	0	0	0	0	0	0	1	1	25.4
062N-063N 000W-001E 100yr	0	1	0	1	0	0	0	0	0	0	1	1	25.4
50yr	0	1	0	1	0	0	0	0	0	0	1	1	25.4
062N-063N 001E-002E 100yr	0	1	0	1	0	0	0	0	0	0	1	1	25.4
50yr	0	1	0	1	0	0	0	0	0	0	1	1	25.4
062N-063N 002E-003E 100yr	0	1	0	1	0	0	0	0	0	0	1	1	23.1
50yr	0	1	0	1	0	0	0	0	0	0	1	1	23.1
062N-063N 003E-004E 100yr	0	1	0	1	0	0	0	0	0	0	1	1	20.8
50yr	0	1	0	1	0	0	0	0	0	0	1	1	20.8
062N-063N 004E-005E 100yr	0	1	0	1	0	0	0	0	0	0	1	1	20.8
50yr	0	1	0	1	0	0	0	0	0	0	1	1	20.8
062N-063N 005E-006E 100yr	0	1	0	1	0	0	0	0	0	0	1	1	20.8
50yr	0	1	0	1	0	0	0	0	0	0	1	1	20.8
062N-063N 006E-007E 100yr	0	1	0	1	0	0	0	0	0	0	1	1	20.8
50yr	0	1	0	1	0	0	0	0	0	0	1	1	20.8
062N-063N 007E-008E 100yr	0	1	0	1	0	0	0	0	0	0	1	1	20.8
50yr	0	1	0	1	0	0	0	0	0	0	1	1	20.8

063°N to 064°N

Grid Cell	TD	TS	G	S	S1	S2	S3	S4	S5	H	<H	All	Spd
063N-064N 056W-055W 100yr	0	1	1	0	0	0	0	0	0	0	1	1	16.5
50yr	0	1	1	0	0	0	0	0	0	0	1	1	16.5
063N-064N 055W-054W 100yr	0	1	1	0	0	0	0	0	0	0	1	1	16.5
50yr	0	1	1	0	0	0	0	0	0	0	1	1	16.5
063N-064N 054W-053W 100yr	0	1	1	0	0	0	0	0	0	0	1	1	22.0
50yr	0	1	1	0	0	0	0	0	0	0	1	1	22.0
063N-064N 031W-030W 100yr	0	1	1	0	0	0	0	0	0	0	1	1	4.5
50yr	0	1	1	0	0	0	0	0	0	0	1	1	4.5
063N-064N 030W-029W 100yr	0	1	1	0	0	0	0	0	0	0	1	1	5.7
50yr	0	1	1	0	0	0	0	0	0	0	1	1	5.7
063N-064N 029W-028W 100yr	0	1	1	0	0	0	0	0	0	0	1	1	8.0
50yr	0	1	1	0	0	0	0	0	0	0	1	1	8.0
063N-064N 028W-027W 100yr	0	1	1	0	0	0	0	0	0	0	1	1	8.0
50yr	0	1	1	0	0	0	0	0	0	0	1	1	8.0
063N-064N 027W-026W 100yr	0	1	1	0	0	0	0	0	0	0	1	1	9.8
50yr	0	1	1	0	0	0	0	0	0	0	1	1	9.8
063N-064N 026W-025W 100yr	0	1	1	0	0	0	0	0	0	0	1	1	9.8
50yr	0	1	1	0	0	0	0	0	0	0	1	1	9.8
063N-064N 025W-024W 100yr	0	1	1	0	0	0	0	0	0	0	1	1	36.7
50yr	0	1	1	0	0	0	0	0	0	0	1	1	36.7
063N-064N 007W-006W 100yr	0	1	0	1	0	0	0	0	0	0	1	1	34.2
50yr	0	1	0	1	0	0	0	0	0	0	1	1	34.2
063N-064N 006W-005W 100yr	0	1	0	1	0	0	0	0	0	0	1	1	34.2
50yr	0	1	0	1	0	0	0	0	0	0	1	1	34.2
063N-064N 005W-004W 100yr	0	1	0	1	0	0	0	0	0	0	1	1	34.2
50yr	0	1	0	1	0	0	0	0	0	0	1	1	34.2

064°N to 065°N

Grid Cell	TD	TS	G	S	S1	S2	S3	S4	S5	H	<H	All	Spd
064N-065N 057W-056W 100yr	0	1	1	0	0	0	0	0	0	0	1	1	10.9
50yr	0	1	1	0	0	0	0	0	0	0	1	1	10.9
064N-065N 056W-055W 100yr	0	1	1	0	0	0	0	0	0	0	1	1	16.5
50yr	0	1	1	0	0	0	0	0	0	0	1	1	16.5
064N-065N 055W-054W 100yr	0	1	1	0	0	0	0	0	0	0	1	1	16.5
50yr	0	1	1	0	0	0	0	0	0	0	1	1	16.5
064N-065N 025W-024W 100yr	0	1	1	0	0	0	0	0	0	0	1	1	36.7
50yr	0	1	1	0	0	0	0	0	0	0	1	1	36.7
064N-065N 024W-023W 100yr	0	1	1	0	0	0	0	0	0	0	1	1	36.7
50yr	0	1	1	0	0	0	0	0	0	0	1	1	36.7

Grid Cell	TD	TS	G	S	S1	S2	S3	S4	S5	H	<H	All	Spd
065°N to 066°N													
065N-066N 057W-056W 100yr	0	1	1	0	0	0	0	0	0	0	1	1	10.9
50yr	0	1	1	0	0	0	0	0	0	0	1	1	10.9
065N-066N 056W-055W 100yr	0	1	1	0	0	0	0	0	0	0	1	1	10.9
50yr	0	1	1	0	0	0	0	0	0	0	1	1	10.9
065N-066N 024W-023W 100yr	0	1	1	0	0	0	0	0	0	0	1	1	32.2
50yr	0	1	1	0	0	0	0	0	0	0	1	1	32.2
065N-066N 023W-022W 100yr	0	1	1	0	0	0	0	0	0	0	1	1	32.2
50yr	0	1	1	0	0	0	0	0	0	0	1	1	32.2
066°N to 067°N													
066N-067N 023W-022W 100yr	0	1	1	0	0	0	0	0	0	0	1	1	27.7
50yr	0	1	1	0	0	0	0	0	0	0	1	1	27.7
066N-067N 022W-021W 100yr	0	1	1	0	0	0	0	0	0	0	1	1	27.7
50yr	0	1	1	0	0	0	0	0	0	0	1	1	27.7
067°N to 068°N													
067N-068N 022W-021W 100yr	0	1	1	0	0	0	0	0	0	0	1	1	27.7
50yr	0	1	1	0	0	0	0	0	0	0	1	1	27.7
067N-068N 021W-020W 100yr	0	1	1	0	0	0	0	0	0	0	1	1	28.5
50yr	0	1	1	0	0	0	0	0	0	0	1	1	28.5
067N-068N 020W-019W 100yr	0	1	1	0	0	0	0	0	0	0	1	1	28.5
50yr	0	1	1	0	0	0	0	0	0	0	1	1	28.5
068°N to 069°N													
068N-069N 021W-020W 100yr	0	1	1	0	0	0	0	0	0	0	1	1	28.5
50yr	0	1	1	0	0	0	0	0	0	0	1	1	28.5
068N-069N 020W-019W 100yr	0	1	1	0	0	0	0	0	0	0	1	1	28.5
50yr	0	1	1	0	0	0	0	0	0	0	1	1	28.5
068N-069N 019W-018W 100yr	1	0	0	0	0	0	0	0	0	0	1	1	29.2
50yr	1	0	0	0	0	0	0	0	0	0	1	1	29.2
068N-069N 018W-017W 100yr	1	0	0	0	0	0	0	0	0	0	1	1	29.2
50yr	1	0	0	0	0	0	0	0	0	0	1	1	29.2
068N-069N 017W-016W 100yr	1	0	0	0	0	0	0	0	0	0	1	1	29.2
50yr	1	0	0	0	0	0	0	0	0	0	1	1	29.2
068N-069N 016W-015W 100yr	1	0	0	0	0	0	0	0	0	0	1	1	29.2
50yr	1	0	0	0	0	0	0	0	0	0	1	1	29.2
068N-069N 015W-014W 100yr	1	0	0	0	0	0	0	0	0	0	1	1	29.2
50yr	1	0	0	0	0	0	0	0	0	0	1	1	29.2
068N-069N 014W-013W 100yr	1	0	0	0	0	0	0	0	0	0	1	1	29.2
50yr	1	0	0	0	0	0	0	0	0	0	1	1	29.2
068N-069N 013W-012W 100yr	1	0	0	0	0	0	0	0	0	0	1	1	30.2

Grid Cell		TD	TS	G	S	S1	S2	S3	S4	S5	H	<H	All	Spd
	50yr	1	0	0	0	0	0	0	0	0	0	1	1	30.2

069°N to 070°N

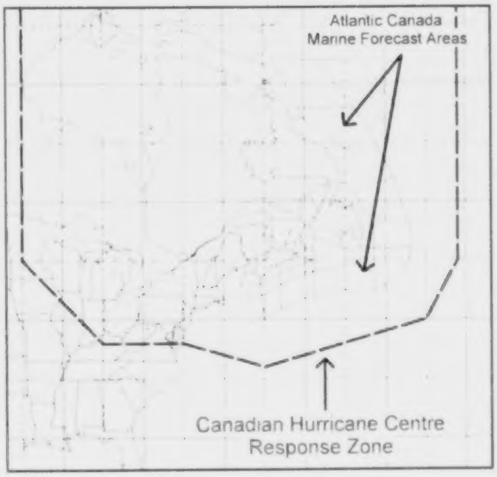
069N-070N 013W-012W	100yr	1	0	0	0	0	0	0	0	0	0	1	1	30.2
	50yr	1	0	0	0	0	0	0	0	0	0	1	1	30.2
069N-070N 012W-011W	100yr	1	0	0	0	0	0	0	0	0	0	1	1	31.2
	50yr	1	0	0	0	0	0	0	0	0	0	1	1	31.2
069N-070N 011W-010W	100yr	1	0	0	0	0	0	0	0	0	0	1	1	31.2
	50yr	1	0	0	0	0	0	0	0	0	0	1	1	31.2
069N-070N 010W-009W	100yr	1	0	0	0	0	0	0	0	0	0	1	1	31.2
	50yr	1	0	0	0	0	0	0	0	0	0	1	1	31.2
069N-070N 009W-008W	100yr	1	0	0	0	0	0	0	0	0	0	1	1	31.2
	50yr	1	0	0	0	0	0	0	0	0	0	1	1	31.2

070°N to 071°N

070N-071N 009W-008W	100yr	1	0	0	0	0	0	0	0	0	0	1	1	31.2
	50yr	1	0	0	0	0	0	0	0	0	0	1	1	31.2
070N-071N 008W-007W	100yr	1	0	0	0	0	0	0	0	0	0	1	1	31.2
	50yr	1	0	0	0	0	0	0	0	0	0	1	1	31.2
070N-071N 007W-006W	100yr	1	0	0	0	0	0	0	0	0	0	1	1	31.2
	50yr	1	0	0	0	0	0	0	0	0	0	1	1	31.2
070N-071N 006W-005W	100yr	1	0	0	0	0	0	0	0	0	0	1	1	31.2
	50yr	1	0	0	0	0	0	0	0	0	0	1	1	31.2
070N-071N 005W-004W	100yr	1	0	0	0	0	0	0	0	0	0	1	1	31.2
	50yr	1	0	0	0	0	0	0	0	0	0	1	1	31.2

APPENDIX V: TROPICAL STORM TRACK MAPS

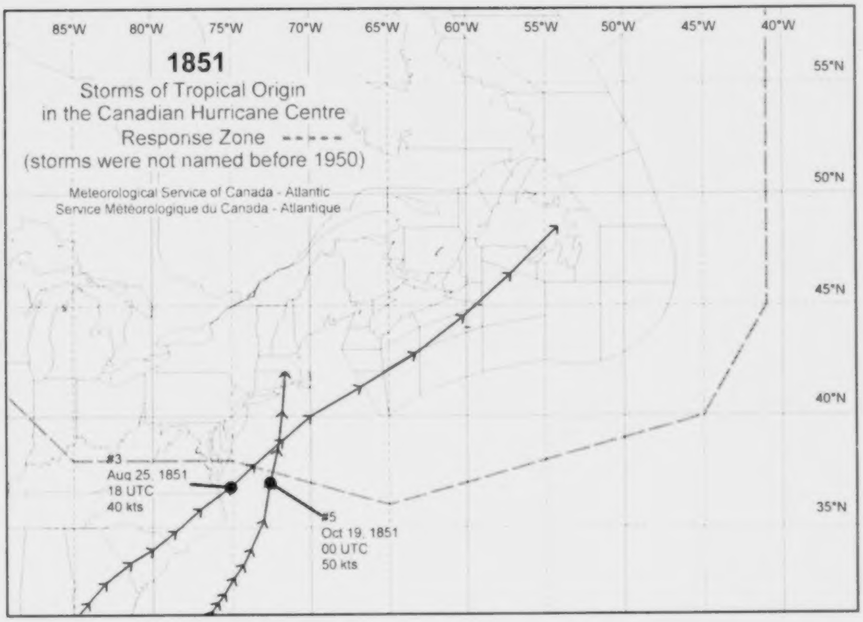
1. Yearly tropical storm track maps for the period 1851 to 2003[#] are contained in this appendix. Tracks are included if the storm moved into the Canadian Hurricane Centre *'Response Zone.'* Storm intensities are colour coded as shown in the table below.
2. The arrow heads on the tracks indicate the beginning/ending of a 6 hour track segment.
3. The track labels are placed at the beginning of the first six hour track segment that entered the *Response Zone*. Additional storm name or yearly storm number labels may be added for clarity on the more complex maps.



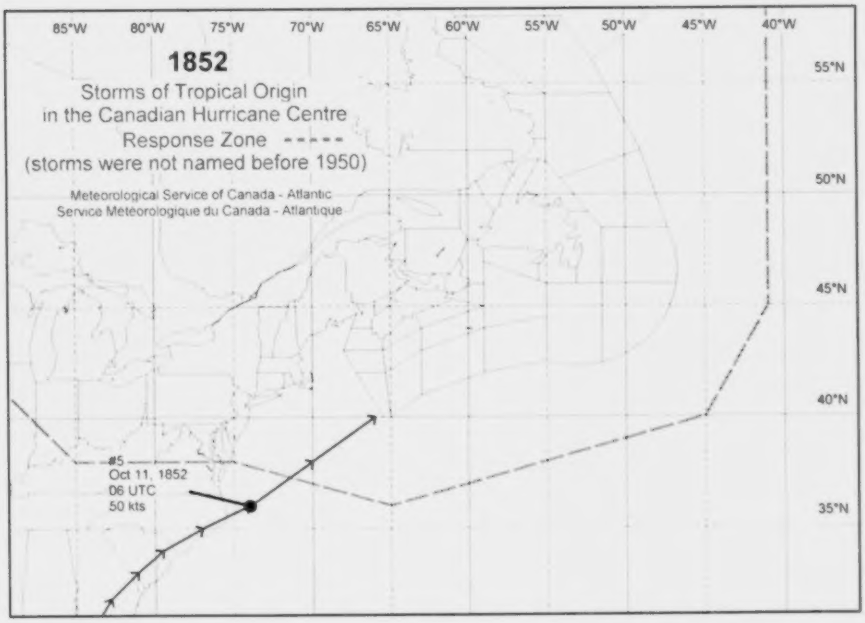
[#]
- The 1851 to 2001 HURDAT file upon which this publication is based was used for that time period.
- The 1851 to 2003 HURDAT file released in the Spring of 2004 was used for the 2002 and 2003 events.
- The 1851 to 2004 HURDAT file released in the Spring of 2005 was used for the 2004 events.
- Because of the significance of the Aug 1893 storm, additional notes have been added in reference to changes found in the Spring 2004 release of HURDAT.

Wind Speed Range Colour Code

Definition	Colour	Winds (knots)	Winds (km/h)	Winds (mph)
Tropical Depression	Green	< 34	< 63	< 39
Tropical Storm	Blue	34-63	63-118	39-73
Saffir-Simpson 1	Red	64-82	119-153	74-95
Saffir-Simpson 2	Red	83-95	154-177	96-110
Saffir-Simpson 3 (intense hurricane)	Black	96-113	178-209	111-130
Saffir-Simpson 4 (intense hurricane)	Black	114-135	210-251	131-155
Saffir-Simpson 5 (intense hurricane)	Black	>135	>251	>155


85°W
80°W
75°W
70°W
65°W
60°W
55°W
50°W
45°W
40°W
55°N
50°N
45°N
40°N
35°N
1851
Storms of Tropical Origin
in the Canadian Hurricane Centre
Response Zone -----
(storms were not named before 1950)
Meteorological Service of Canada - Atlantic
Service Météorologique du Canada - Atlantique
#3
Aug 25, 1851
18 UTC
40 kts
#5
Oct 19, 1851
00 UTC
50 kts

1850's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75°W
70°W
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60°W
55°W
50°W
45°W
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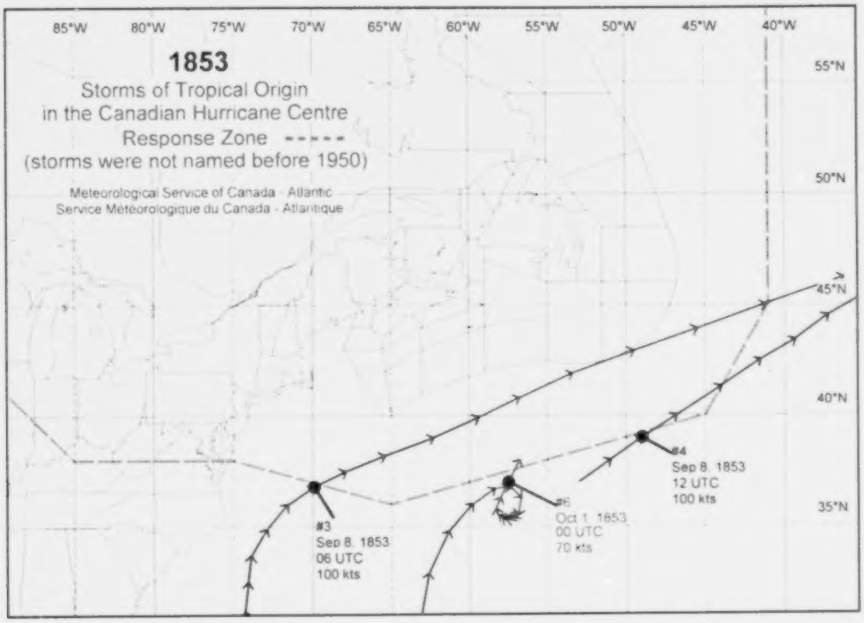
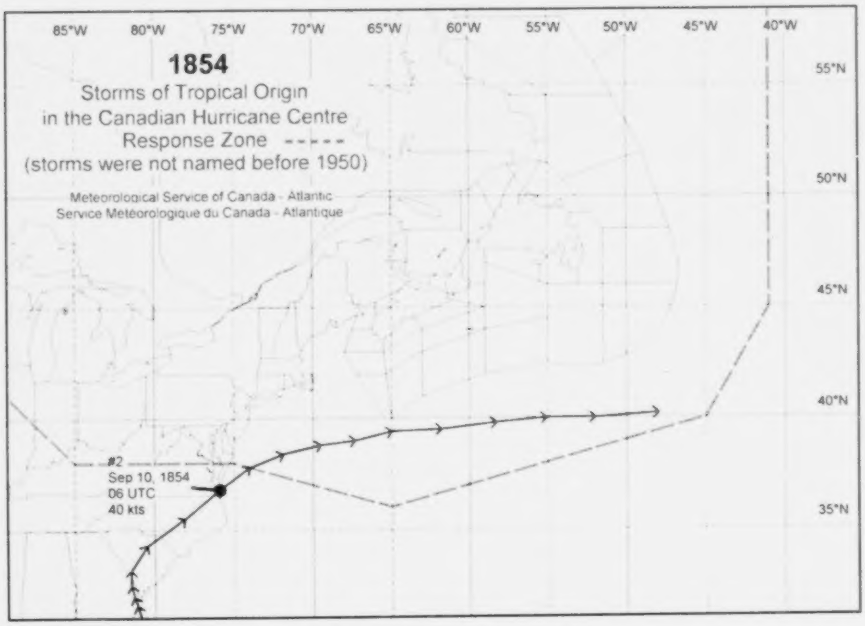
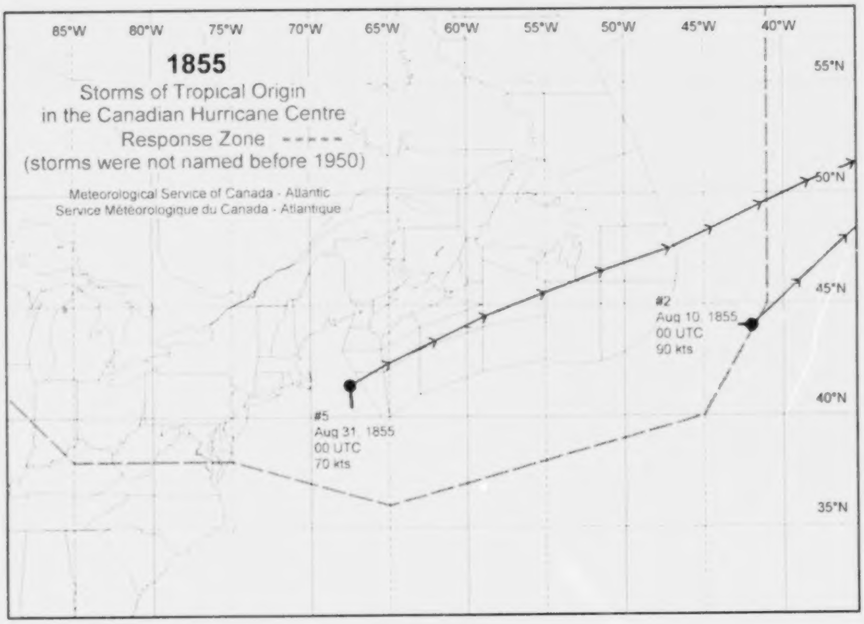
55°N
50°N
45°N
40°N
35°N
1852
Storms of Tropical Origin
in the Canadian Hurricane Centre
Response Zone -----
(storms were not named before 1950)
Meteorological Service of Canada - Atlantic
Service Météorologique du Canada - Atlantique
#5
Oct 11, 1852
06 UTC
50 kts


1853
Storms of Tropical Origin
in the Canadian Hurricane Centre
Response Zone - - - - -
(storms were not named before 1950)
Meteorological Service of Canada - Atlantic
Service Météorologique du Canada - Atlantique
85°W
80°W
75°W
70°W
65°W
60°W
55°W
50°W
45°W
40°W
55°N
50°N
45°N
40°N
35°N
#3
Sep 8, 1853
06 UTC
100 kts
#6
Oct 1, 1853
00 UTC
70 kts
#4
Sep 8, 1853
12 UTC
100 kts


1854
Storms of Tropical Origin
in the Canadian Hurricane Centre
Response Zone - - - - -
(storms were not named before 1950)
Meteorological Service of Canada - Atlantic
Service Météorologique du Canada - Atlantique
85°W
80°W
75°W
70°W
65°W
60°W
55°W
50°W
45°W
40°W
55°N
50°N
45°N
40°N
35°N
#2
Sep 10, 1854
06 UTC
40 kts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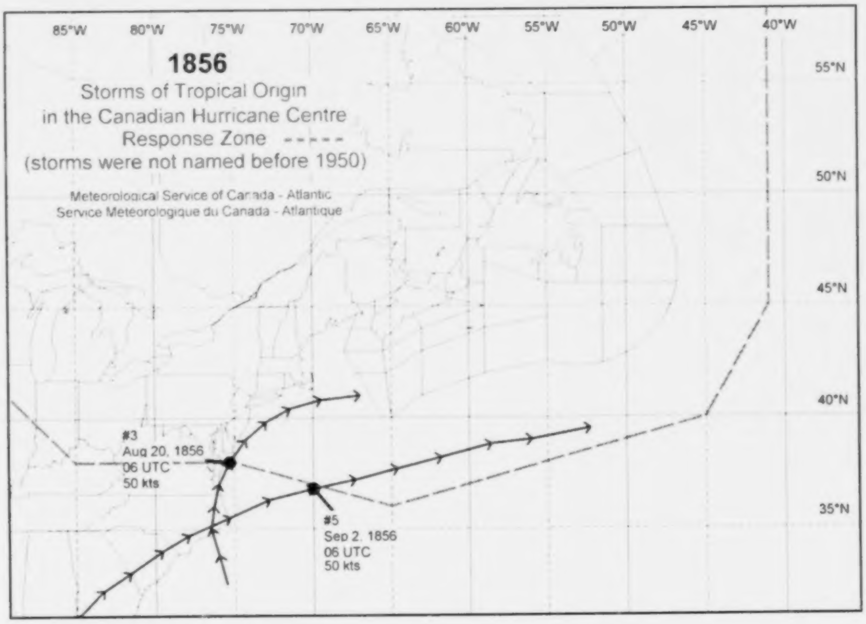
70°W
65°W
60°W
55°W
50°W
45°W
40°W
55°N
50°N
45°N
40°N
35°N
1855
Storms of Tropical Origin
in the Canadian Hurricane Centre
Response Zone - - - - -
(storms were not named before 1950)
Meteorological Service of Canada - Atlantic
Service Météorologique du Canada - Atlantique
#2
Aug 10, 1855
00 UTC
90 kts
#5
Aug 31, 1855
00 UTC
70 kts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70°W
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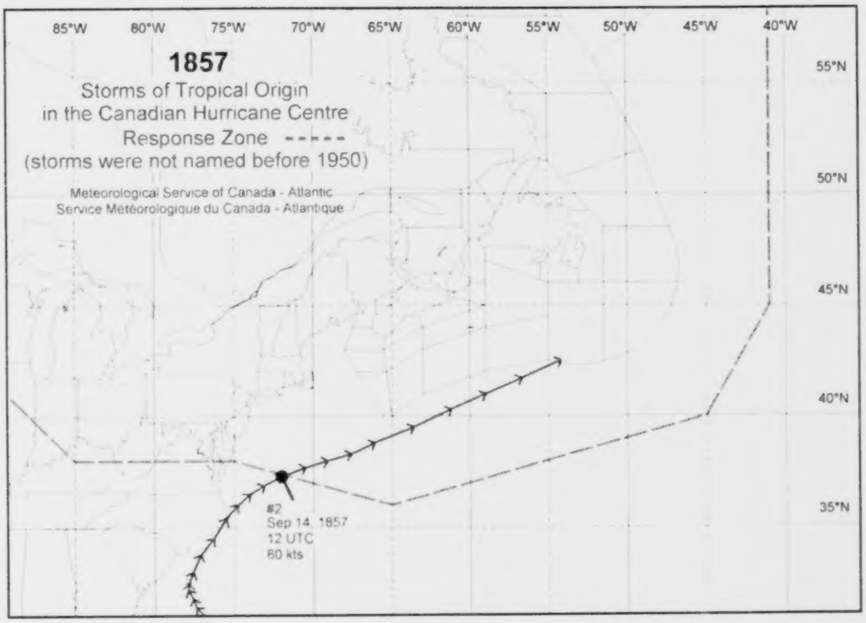
60°W
55°W
50°W
45°W
40°W
55°N
50°N
45°N
40°N
35°N
1856
Storms of Tropical Origin
in the Canadian Hurricane Centre
Response Zone - - - - -
(storms were not named before 1950)
Meteorological Service of Canada - Atlantic
Service Météorologique du Canada - Atlantique
#3
Aug 20, 1856
06 UTC
50 kts
#5
Sep 2, 1856
06 UTC
50 kts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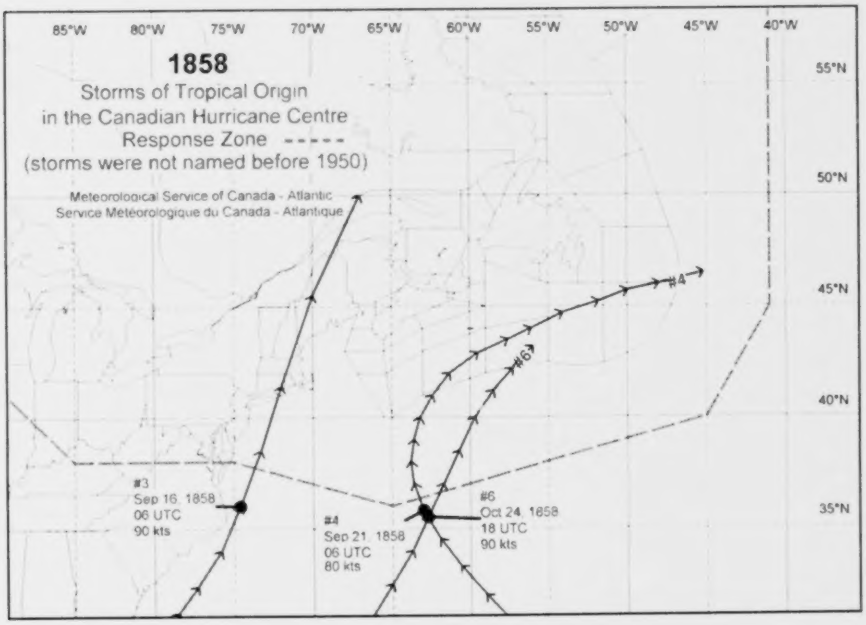
60°W
55°W
50°W
45°W
40°W
55°N
50°N
45°N
40°N
35°N
1857
Storms of Tropical Origin
in the Canadian Hurricane Centre
Response Zone -----
(storms were not named before 1950)
Meteorological Service of Canada - Atlantic
Service Météorologique du Canada - Atlantique
#2
Sep 14, 1857
12 UTC
80 kts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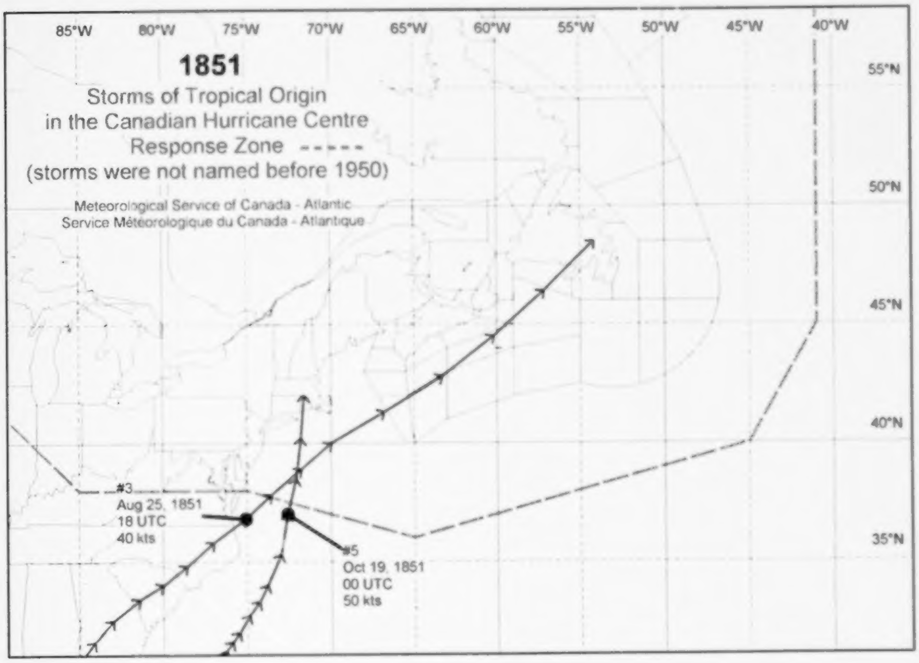
70°W
65°W
60°W
55°W
50°W
45°W
40°W
55°N
50°N
45°N
40°N
35°N
1858
Storms of Tropical Origin
in the Canadian Hurricane Centre
Response Zone -----
(storms were not named before 1950)
Meteorological Service of Canada - Atlantic
Service Météorologique du Canada - Atlantique
#4
#6
#3
Sep 16, 1858
06 UTC
90 kts
#4
Sep 21, 1858
06 UTC
80 kts
#6
Oct 24, 1858
18 UTC
90 kts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80°W
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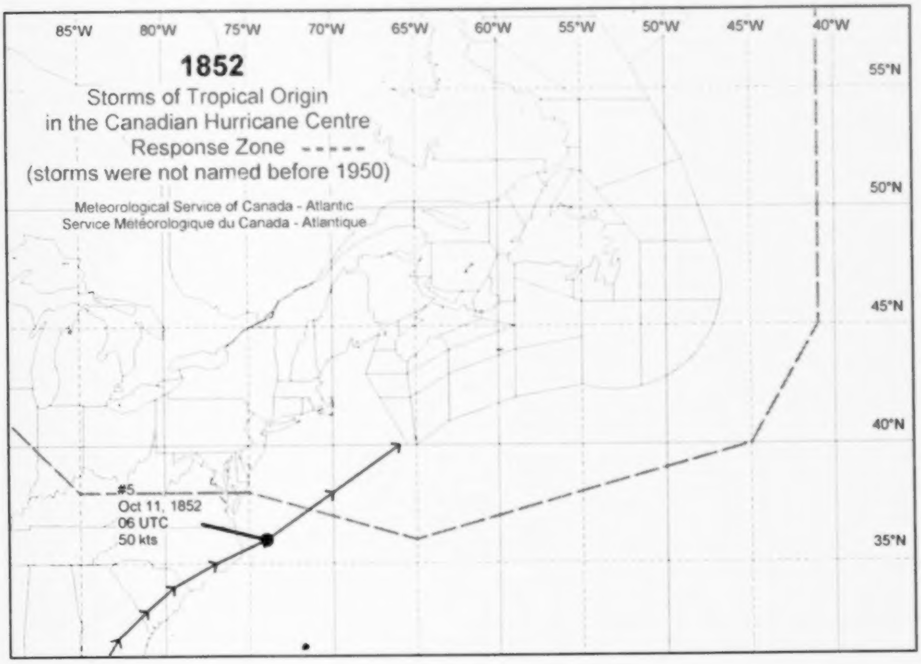
70°W
65°W
60°W
55°W
50°W
45°W
40°W
55°N
50°N
45°N
40°N
35°N
1851
Storms of Tropical Origin
in the Canadian Hurricane Centre
Response Zone -----
(storms were not named before 1950)
Meteorological Service of Canada - Atlantic
Service Météorologique du Canada - Atlantique
#3
Aug 25, 1851
18 UTC
40 kts
#5
Oct 19, 1851
00 UTC
50 kts

1850's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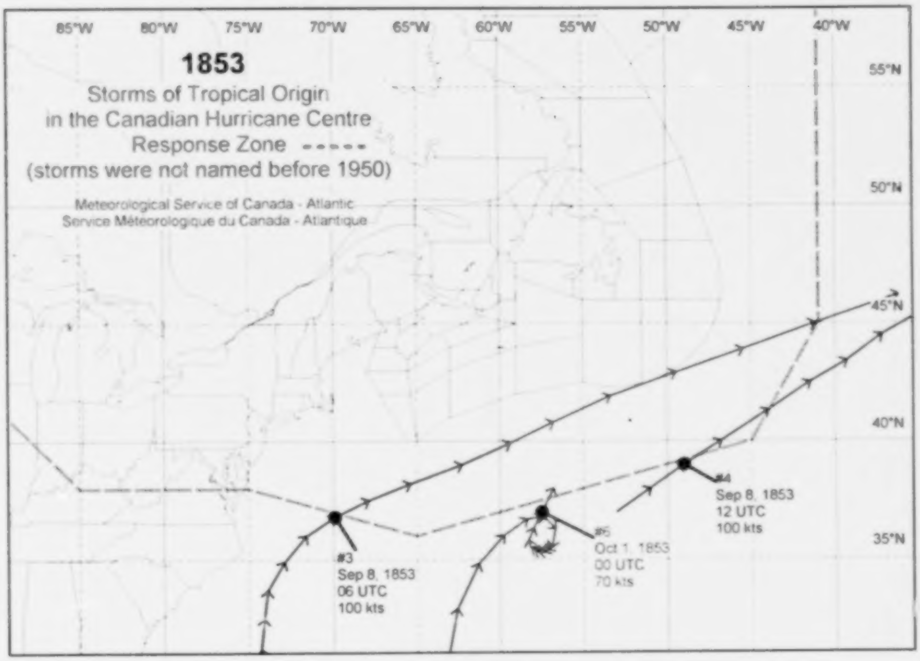
70°W
65°W
60°W
55°W
50°W
45°W
40°W
55°N
50°N
45°N
40°N
35°N
1852
Storms of Tropical Origin
in the Canadian Hurricane Centre
Response Zone -----
(storms were not named before 1950)
Meteorological Service of Canada - Atlantic
Service Météorologique du Canada - Atlantique
#5
Oct 11, 1852
06 UTC
50 kts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70°W
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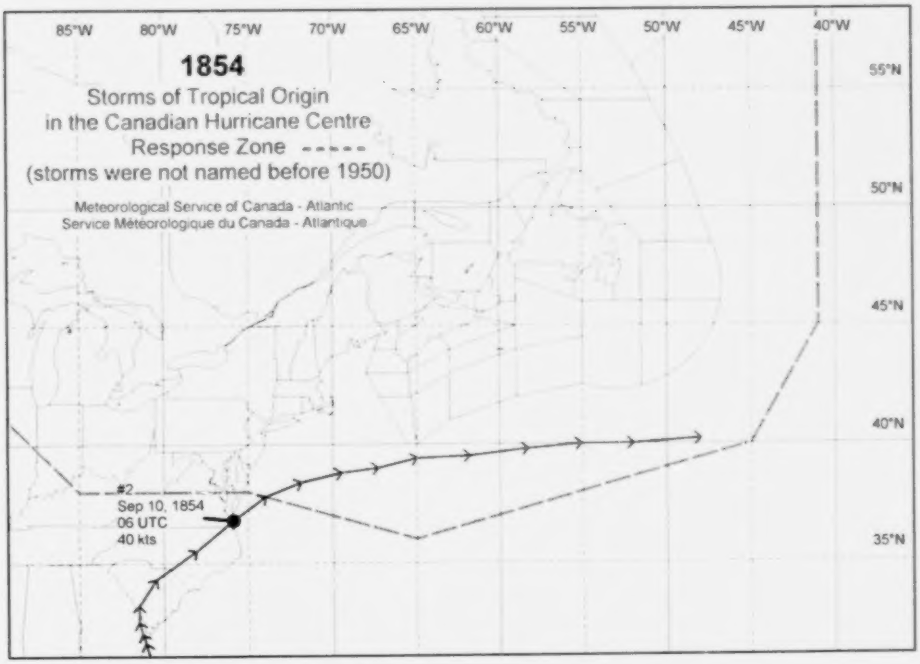
60°W
55°W
50°W
45°W
40°W
55°N
50°N
45°N
40°N
35°N
1853
Storms of Tropical Origin
in the Canadian Hurricane Centre
Response Zone -----
(storms were not named before 1950)
Meteorological Service of Canada - Atlantic
Service Météorologique du Canada - Atlantique
#3
Sep 8, 1853
06 UTC
100 kts
#5
Oct 1, 1853
00 UTC
70 kts
#4
Sep 8, 1853
12 UTC
100 kts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70°W
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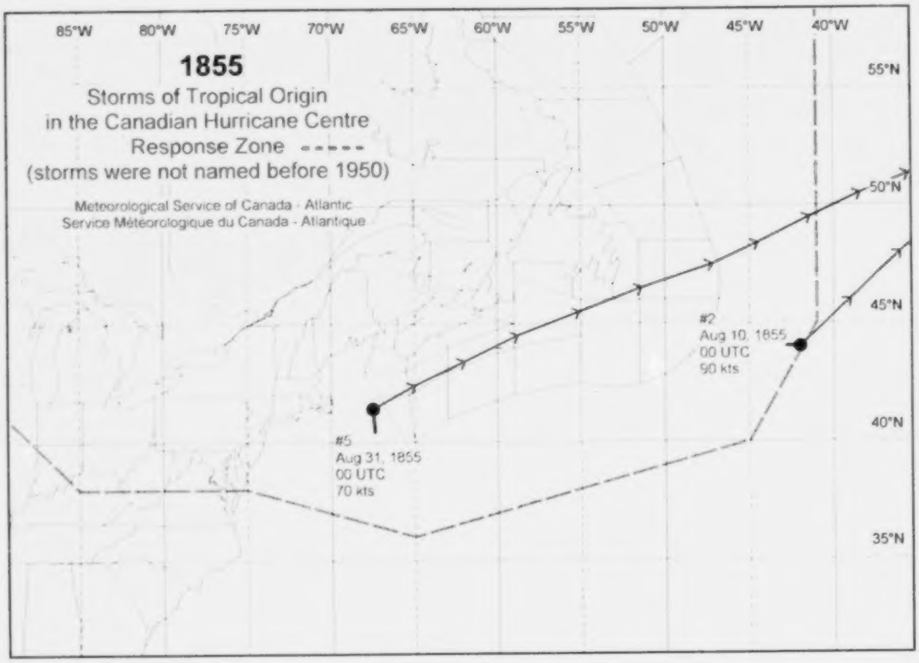
60°W
55°W
50°W
45°W
40°W
55°N
50°N
45°N
40°N
35°N
1854
Storms of Tropical Origin
in the Canadian Hurricane Centre
Response Zone -----
(storms were not named before 1950)
Meteorological Service of Canada - Atlantic
Service Météorologique du Canada - Atlantique
#2
Sep 10, 1854
06 UTC
40 kts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80°W
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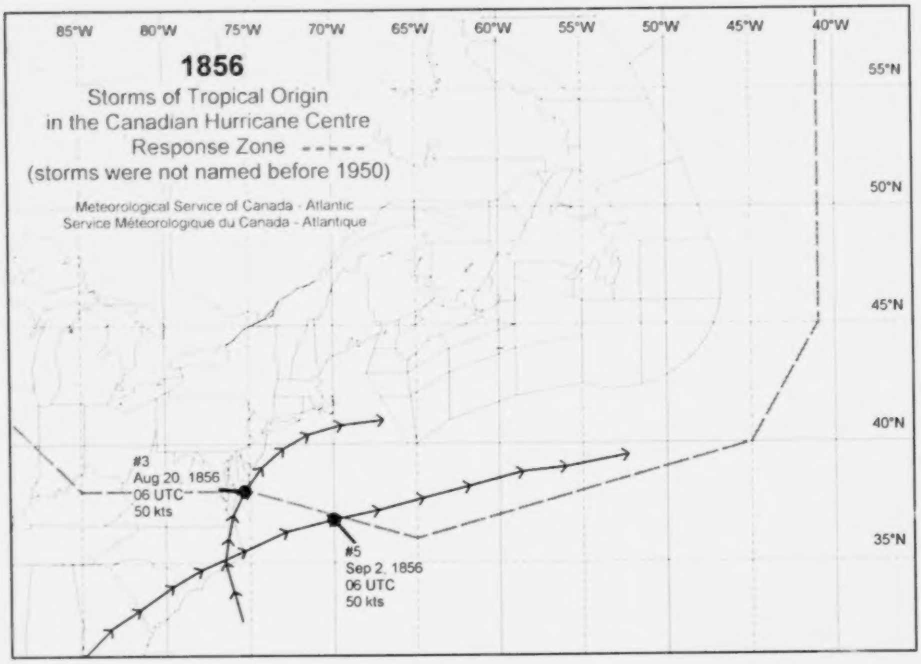
70°W
65°W
60°W
55°W
50°W
45°W
40°W
55°N
50°N
45°N
40°N
35°N
1855
Storms of Tropical Origin
in the Canadian Hurricane Centre
Response Zone -----
(storms were not named before 1950)
Meteorological Service of Canada - Atlantic
Service Météorologique du Canada - Atlantique
#2
Aug 10, 1855
00 UTC
90 kts
#5
Aug 31, 1855
00 UTC
70 kts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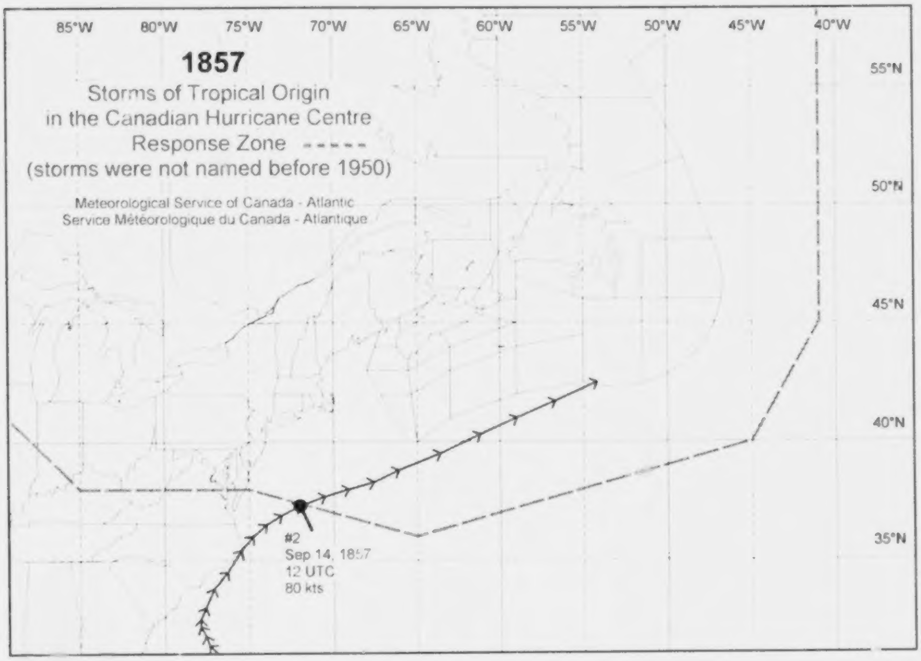
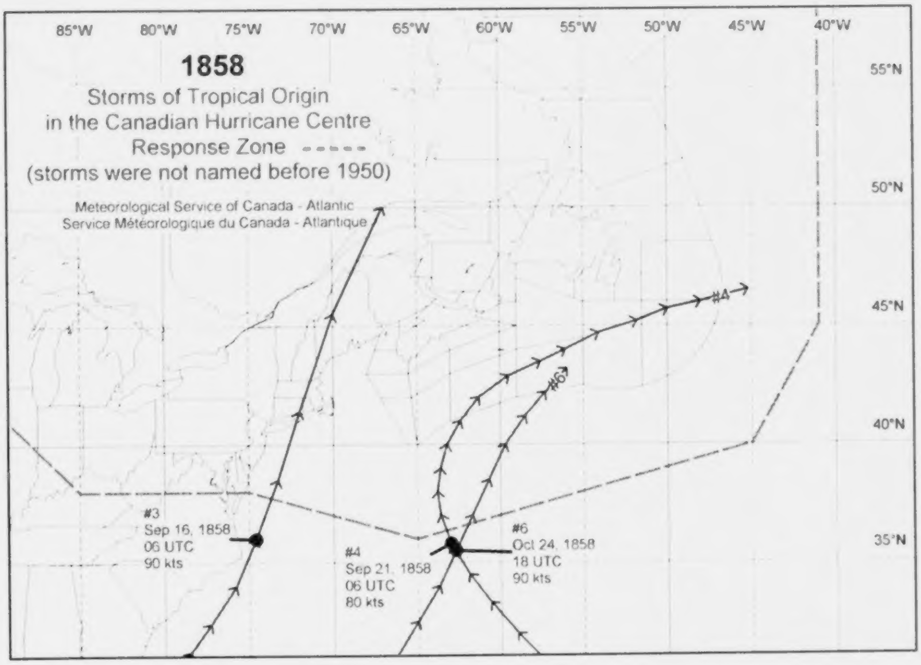
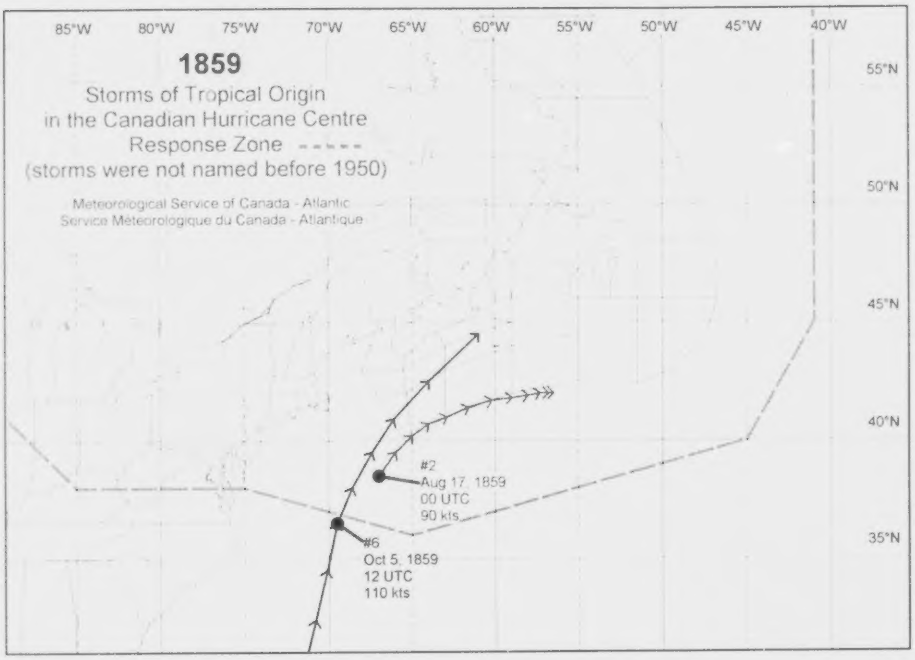
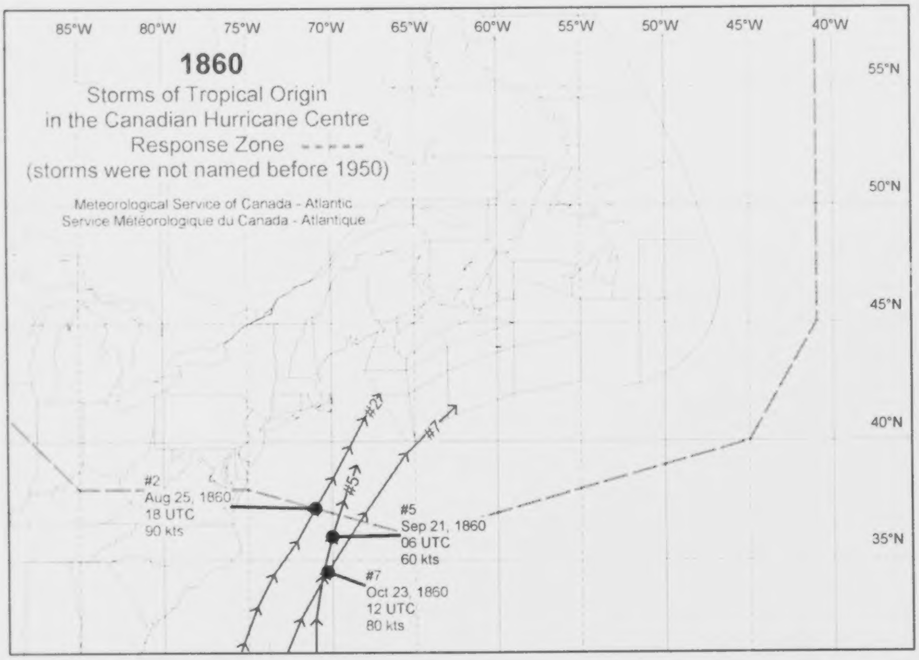
80°W
75°W
70°W
65°W
60°W
55°W
50°W
45°W
40°W
55°N
50°N
45°N
40°N
35°N
1856
Storms of Tropical Origin
in the Canadian Hurricane Centre
Response Zone -----
(storms were not named before 1950)
Meteorological Service of Canada - Atlantic
Service Météorologique du Canada - Atlantique
#3
Aug 20, 1856
06 UTC
50 kts
#5
Sep 2, 1856
06 UTC
50 kts

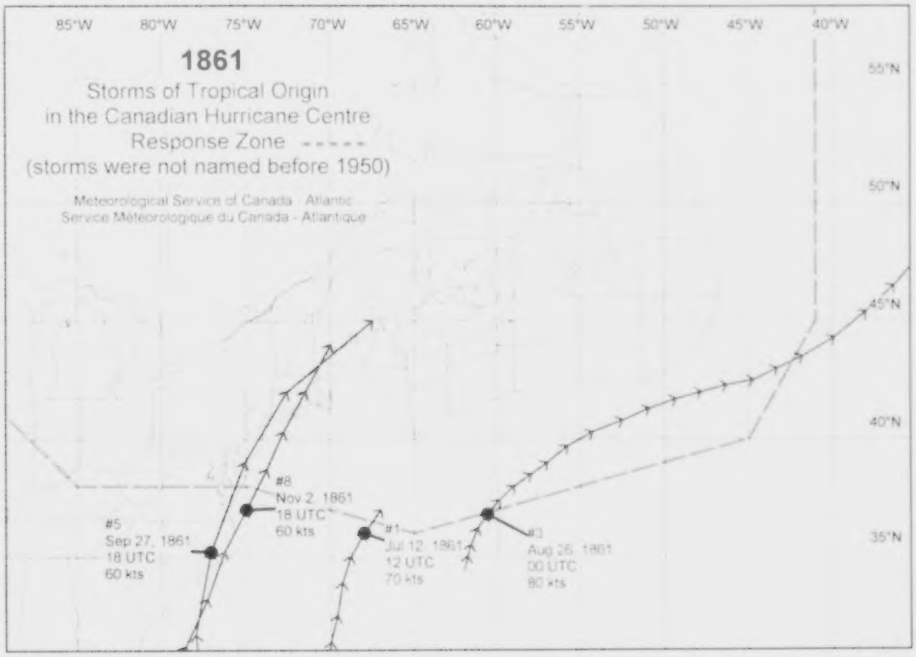

85°W
80°W
75°W
70°W
65°W
60°W
55°W
50°W
45°W
40°W
55°N
50°N
45°N
40°N
35°N
1857
Storms of Tropical Origin
in the Canadian Hurricane Centre
Response Zone -----
(storms were not named before 1950)
Meteorological Service of Canada - Atlantic
Service Météorologique du Canada - Atlantique
#2
Sep 14, 1857
12 UTC
80 kts

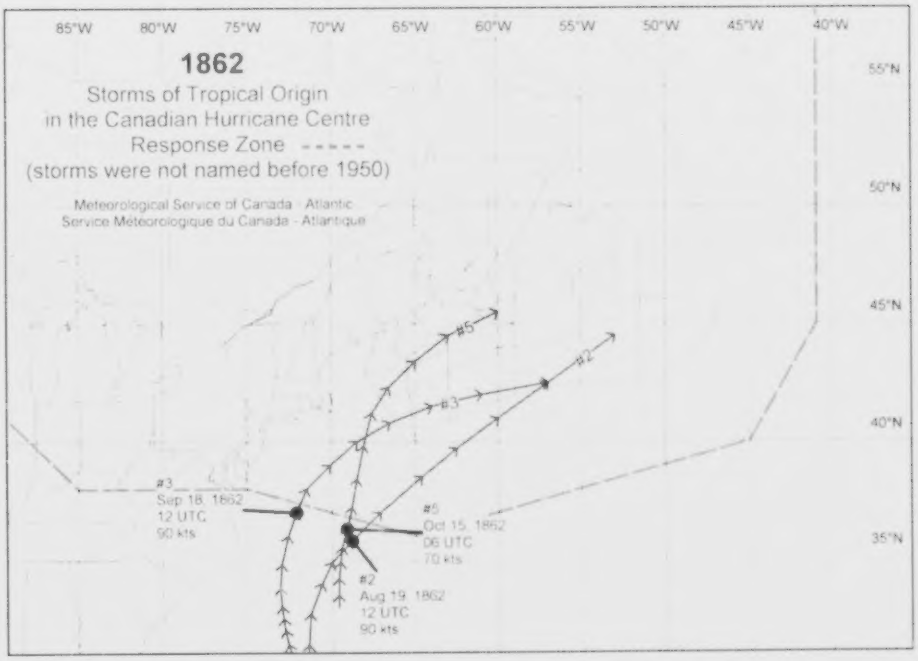

85°W
80°W
75°W
70°W
65°W
60°W
55°W
50°W
45°W
40°W
55°N
50°N
45°N
40°N
35°N
1858
Storms of Tropical Origin
in the Canadian Hurricane Centre
Response Zone -----
(storms were not named before 1950)
Meteorological Service of Canada - Atlantic
Service Météorologique du Canada - Atlantique
#4
#6
#3
Sep 16, 1858
06 UTC
90 kts
#4
Sep 21, 1858
06 UTC
80 kts
#6
Oct 24, 1858
18 UTC
90 kts


85°W
80°W
75°W
70°W
65°W
60°W
55°W
50°W
45°W
40°W
55°N
50°N
45°N
40°N
35°N
1859
Storms of Tropical Origin
in the Canadian Hurricane Centre
Response Zone
(storms were not named before 1950)
Meteorological Service of Canada - Atlantic
Service Météorologique du Canada - Atlantique
#2
Aug 17, 1859
00 UTC
90 kts
#6
Oct 5, 1859
12 UTC
110 kts

1860's


85°W
80°W
75°W
70°W
65°W
60°W
55°W
50°W
45°W
40°W
55°N
50°N
45°N
40°N
35°N
1860
Storms of Tropical Origin
in the Canadian Hurricane Centre
Response Zone
(storms were not named before 1950)
Meteorological Service of Canada - Atlantic
Service Météorologique du Canada - Atlantique
#2
#5
#7
#2
Aug 25, 1860
18 UTC
90 kts
#5
Sep 21, 1860
06 UTC
60 kts
#7
Oct 23, 1860
12 UTC
80 kts


85°W
80°W
75°W
70°W
65°W
60°W
55°W
50°W
45°W
40°W
55°N
50°N
45°N
40°N
35°N
1861
Storms of Tropical Origin
in the Canadian Hurricane Centre
Response Zone - - - - -
(storms were not named before 1950)
Meteorological Service of Canada - Atlantic
Service Météorologique du Canada - Atlantique
#8
Nov 2, 1861
18 UTC
60 kts
#5
Sep 27, 1861
18 UTC
60 kts
#1
Jul 12, 1861
12 UTC
70 kts
#3
Aug 26, 1861
00 UTC
80 kts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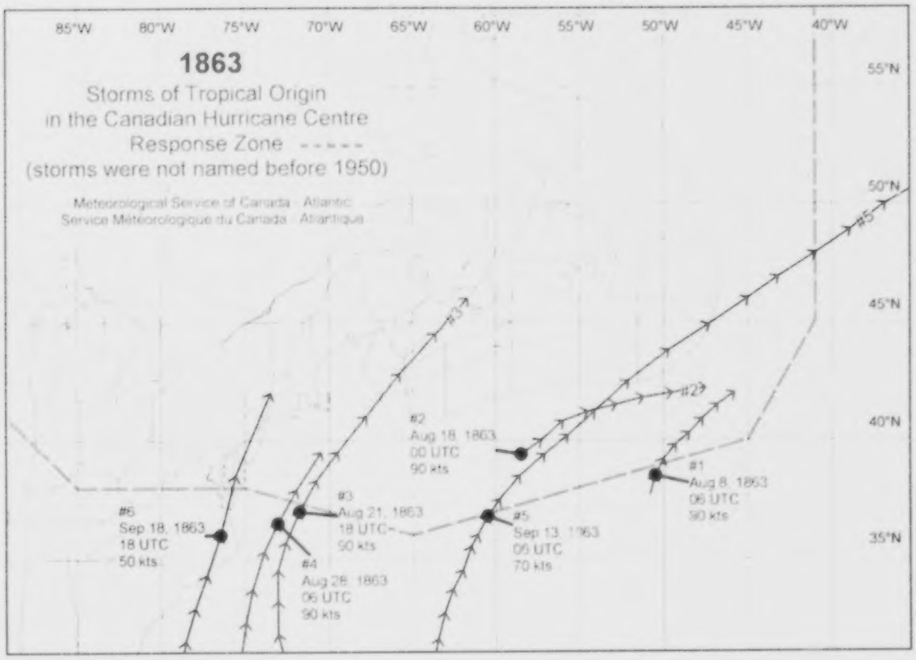
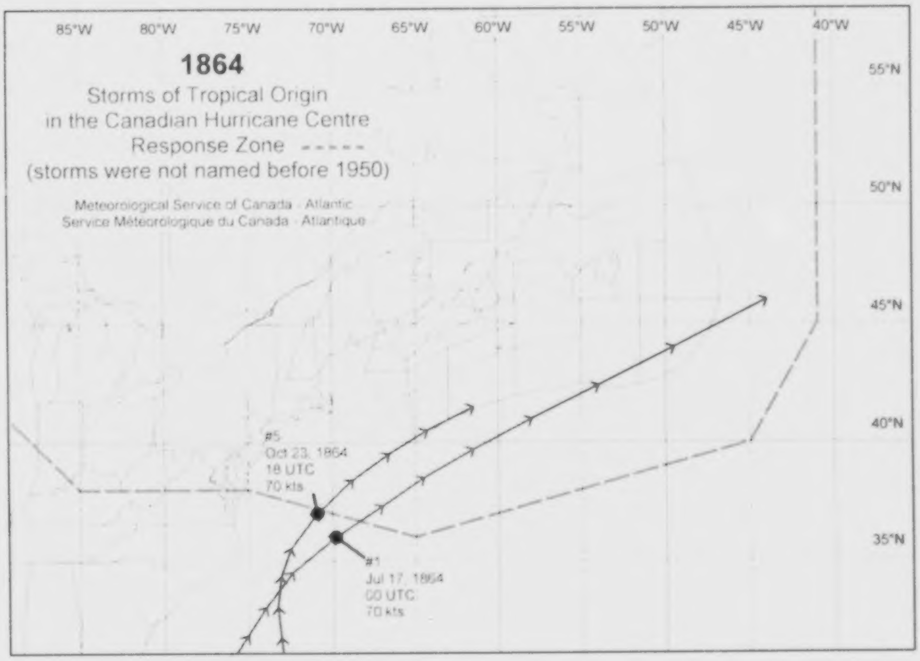
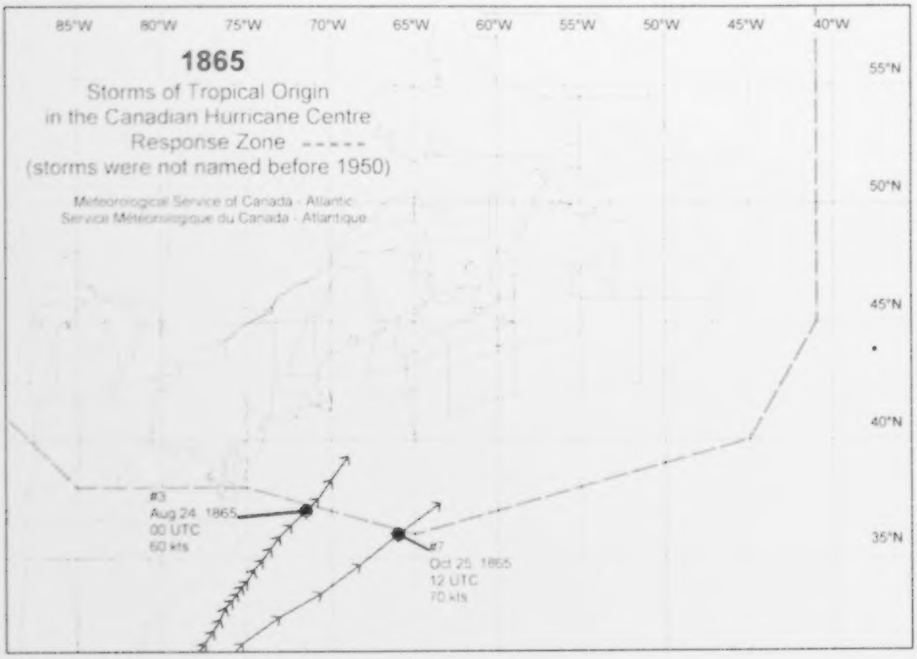
80°W
75°W
70°W
65°W
60°W
55°W
50°W
45°W
40°W
55°N
50°N
45°N
40°N
35°N
1862
Storms of Tropical Origin
in the Canadian Hurricane Centre
Response Zone - - - - -
(storms were not named before 1950)
Meteorological Service of Canada - Atlantic
Service Météorologique du Canada - Atlantique
#5
#2
#3
#3
Sep 18, 1862
12 UTC
90 kts
#5
Oct 15, 1862
06 UTC
70 kts
#2
Aug 19, 1862
12 UTC
90 kts


85°W
80°W
75°W
70°W
65°W
60°W
55°W
50°W
45°W
40°W
55°N
50°N
45°N
40°N
35°N
1863
Storms of Tropical Origin
in the Canadian Hurricane Centre
Response Zone - - - - -
(storms were not named before 1950)
Meteorological Service of Canada - Atlantic
Service Météorologique du Canada - Atlantique
#5
#3
#2
#2
Aug 18, 1863
00 UTC
90 kts
#1
Aug 8, 1863
06 UTC
90 kts
#3
Aug 21, 1863
18 UTC
90 kts
#6
Sep 18, 1863
18 UTC
50 kts
#4
Aug 28, 1863
06 UTC
90 kts
#5
Sep 13, 1863
05 UTC
70 kts


85°W
80°W
75°W
70°W
65°W
60°W
55°W
50°W
45°W
40°W
55°N
50°N
45°N
40°N
35°N
1864
Storms of Tropical Origin
in the Canadian Hurricane Centre
Response Zone - - - - -
(storms were not named before 1950)
Meteorological Service of Canada - Atlantic
Service Météorologique du Canada - Atlantique
#5
Oct 23, 1864
18 UTC
70 kts
#1
Jul 17, 1864
00 UTC
70 kts



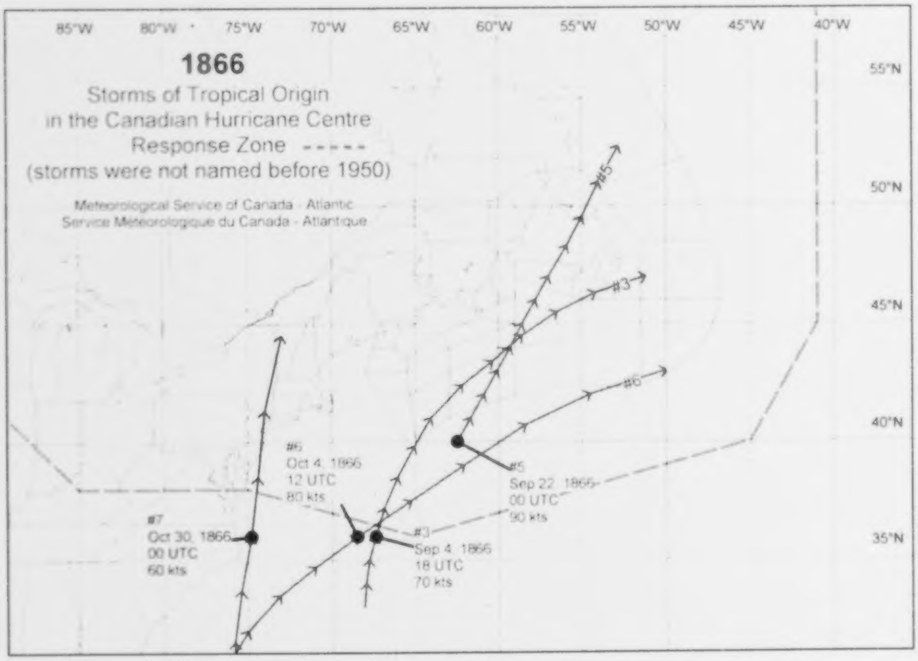
1865

Storms of Tropical Origin in the Canadian Hurricane Centre Response Zone -----

(storms were not named before 1950)

Meteorological Service of Canada - Atlantic
Service Météorologique du Canada - Atlantique

85°W
80°W
75°W
70°W
65°W
60°W
55°W
50°W
45°W
40°W
55°N
50°N
45°N
40°N
35°N
#3
Aug 24 1865
00 UTC
60 kts
#7
Oct 25 1865
12 UTC
70 kts



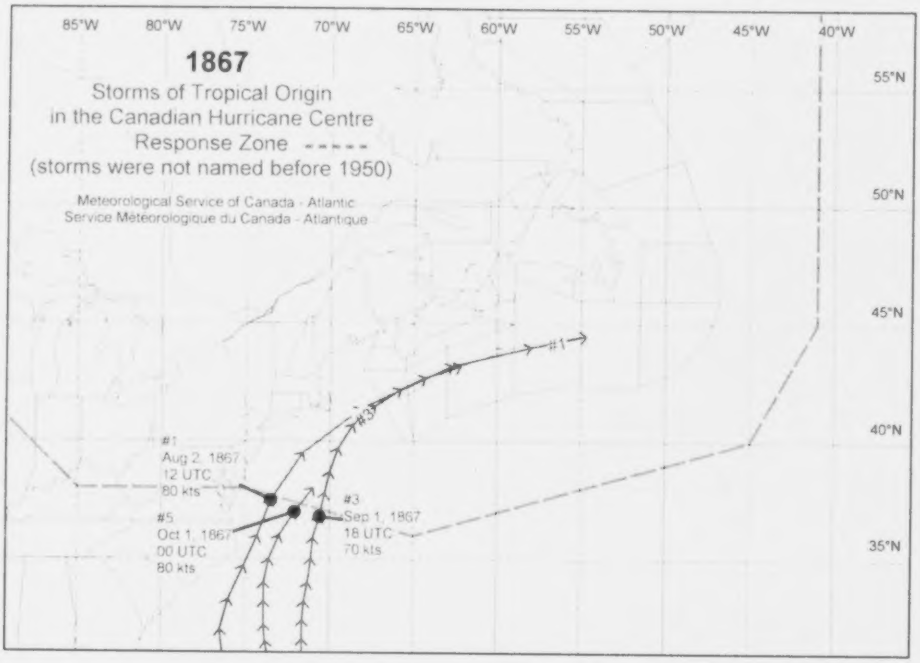
1866

Storms of Tropical Origin in the Canadian Hurricane Centre Response Zone -----

(storms were not named before 1950)

Meteorological Service of Canada - Atlantic
Service Météorologique du Canada - Atlantique

85°W
80°W
75°W
70°W
65°W
60°W
55°W
50°W
45°W
40°W
55°N
50°N
45°N
40°N
35°N
#5
#3
#6
#6
Oct 4 1866
12 UTC
80 kts
#5
Sep 22 1866
00 UTC
90 kts
#7
Oct 30 1866
00 UTC
60 kts
#3
Sep 4 1866
18 UTC
70 kts

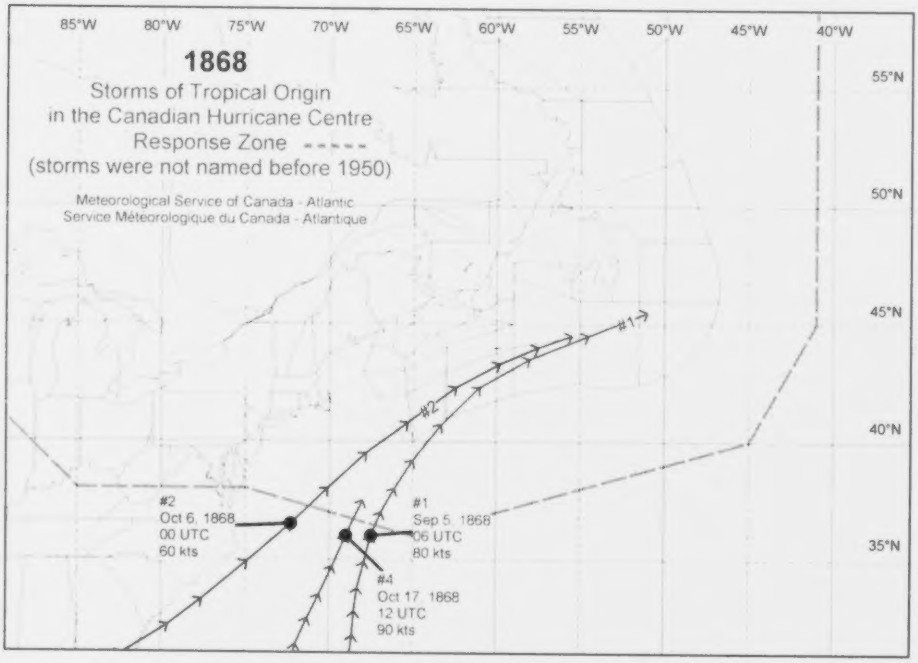


1867

Storms of Tropical Origin in the Canadian Hurricane Centre Response Zone - - - - -
(storms were not named before 1950)

Meteorological Service of Canada - Atlantic
Service Météorologique du Canada - Atlantique

85°W
80°W
75°W
70°W
65°W
60°W
55°W
50°W
45°W
40°W
55°N
50°N
45°N
40°N
35°N
#1
#3
#1
Aug 2, 1867
12 UTC
80 kts
#5
Oct 1, 1867
00 UTC
80 kts
#3
Sep 1, 1867
18 UTC
70 kts

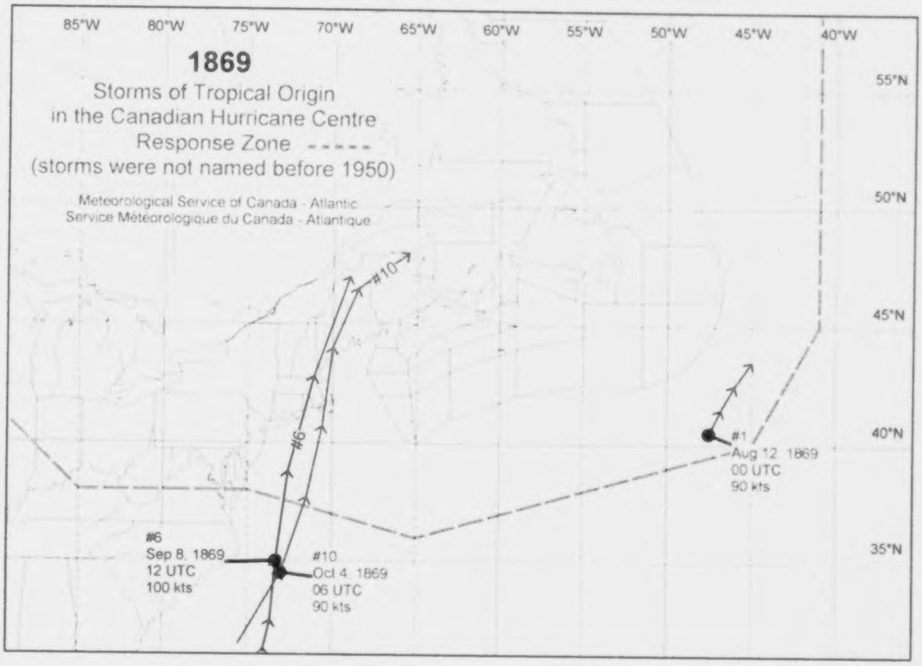


1868

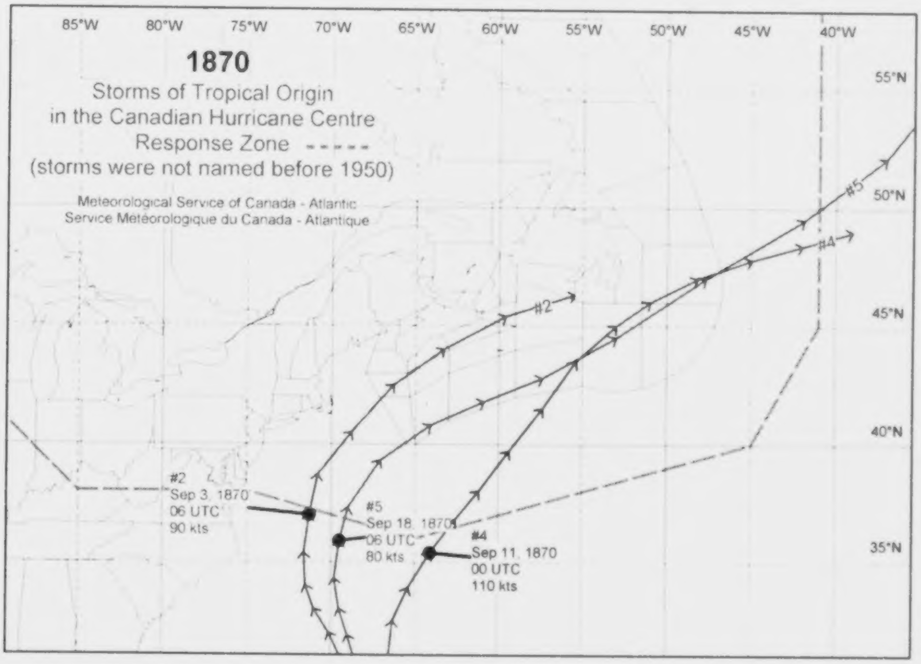
Storms of Tropical Origin in the Canadian Hurricane Centre Response Zone - - - - -
(storms were not named before 1950)

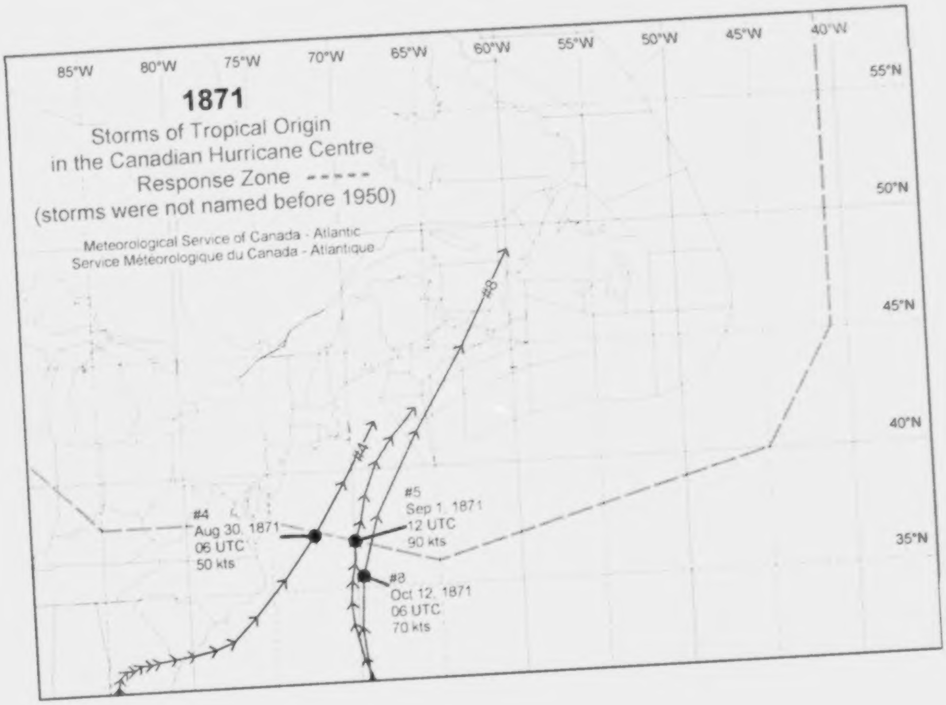
Meteorological Service of Canada - Atlantic
Service Météorologique du Canada - Atlantique

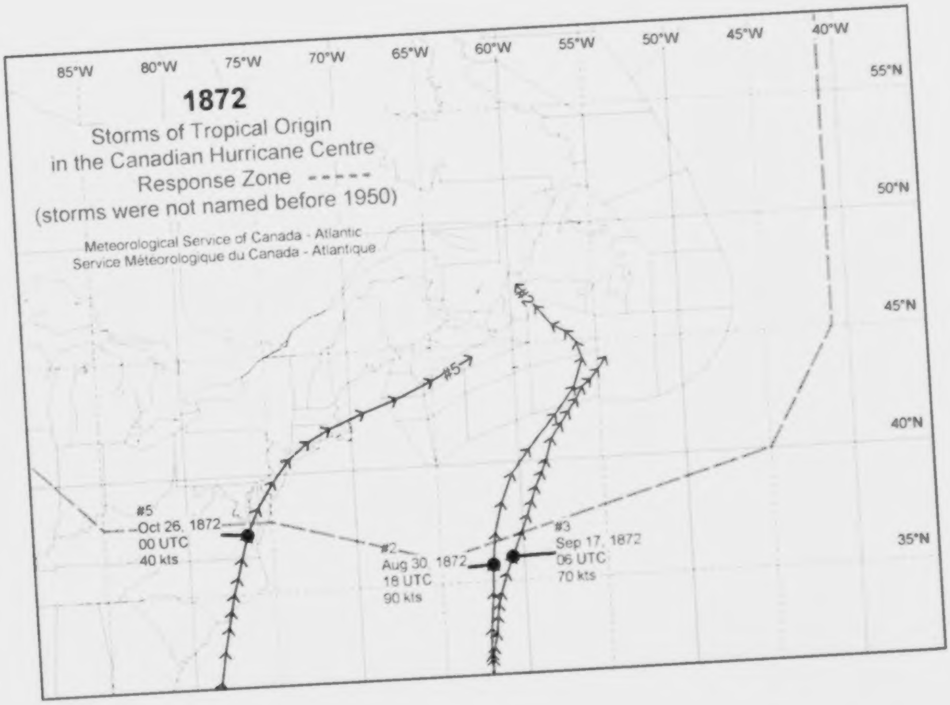
85°W
80°W
75°W
70°W
65°W
60°W
55°W
50°W
45°W
40°W
55°N
50°N
45°N
40°N
35°N
#1
#2
#2
Oct 6, 1868
00 UTC
60 kts
#1
Sep 5, 1868
06 UTC
80 kts
#4
Oct 17, 1868
12 UTC
90 kts


85°W
80°W
75°W
70°W
65°W
60°W
55°W
50°W
45°W
40°W
55°N
50°N
45°N
40°N
35°N
1869
Storms of Tropical Origin
in the Canadian Hurricane Centre
Response Zone -----
(storms were not named before 1950)
Meteorological Service of Canada - Atlantic
Service Météorologique du Canada - Atlantique
#10
#6
#1
Aug 12, 1869
00 UTC
90 kts
#6
Sep 8, 1869
12 UTC
100 kts
#10
Oct 4, 1869
06 UTC
90 kts

1870's


85°W
80°W
75°W
70°W
65°W
60°W
55°W
50°W
45°W
40°W
55°N
50°N
45°N
40°N
35°N
1870
Storms of Tropical Origin
in the Canadian Hurricane Centre
Response Zone -----
(storms were not named before 1950)
Meteorological Service of Canada - Atlantic
Service Météorologique du Canada - Atlantique
#5
#4
#2
#2
Sep 3, 1870
06 UTC
90 kts
#5
Sep 18, 1870
06 UTC
80 kts
#4
Sep 11, 1870
00 UTC
110 kts


85°W
80°W
75°W
70°W
65°W
60°W
55°W
50°W
45°W
40°W
55°N
50°N
45°N
40°N
35°N
1871
Storms of Tropical Origin
in the Canadian Hurricane Centre
Response Zone -----
(storms were not named before 1950)
Meteorological Service of Canada - Atlantic
Service Météorologique du Canada - Atlantique
#8
#4
#5
Sep 1, 1871
12 UTC
90 kts
#4
Aug 30, 1871
06 UTC
50 kts
#8
Oct 12, 1871
06 UTC
70 kts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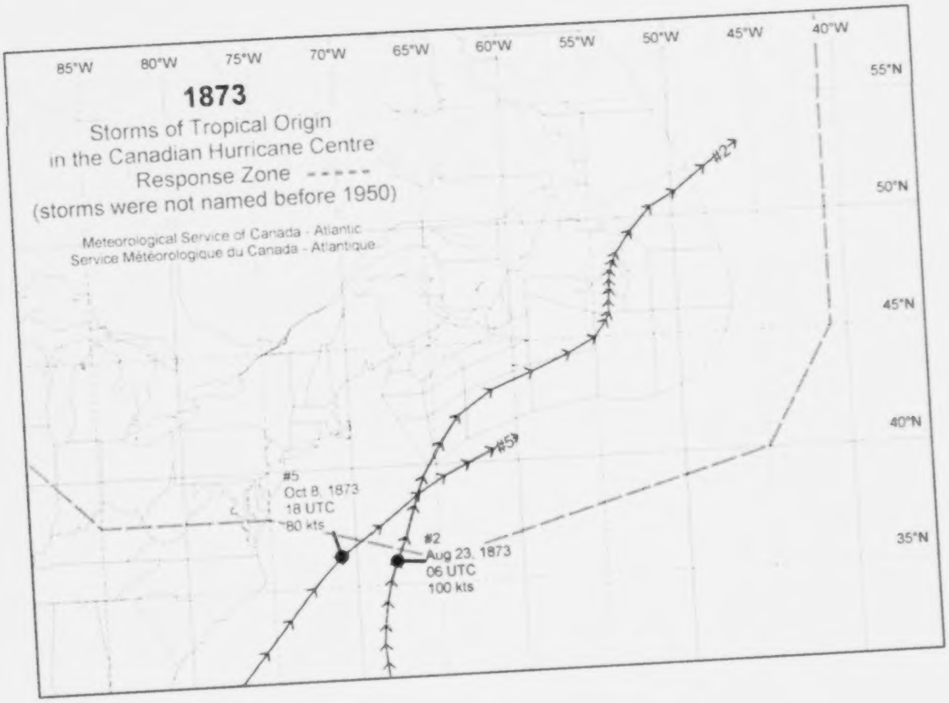
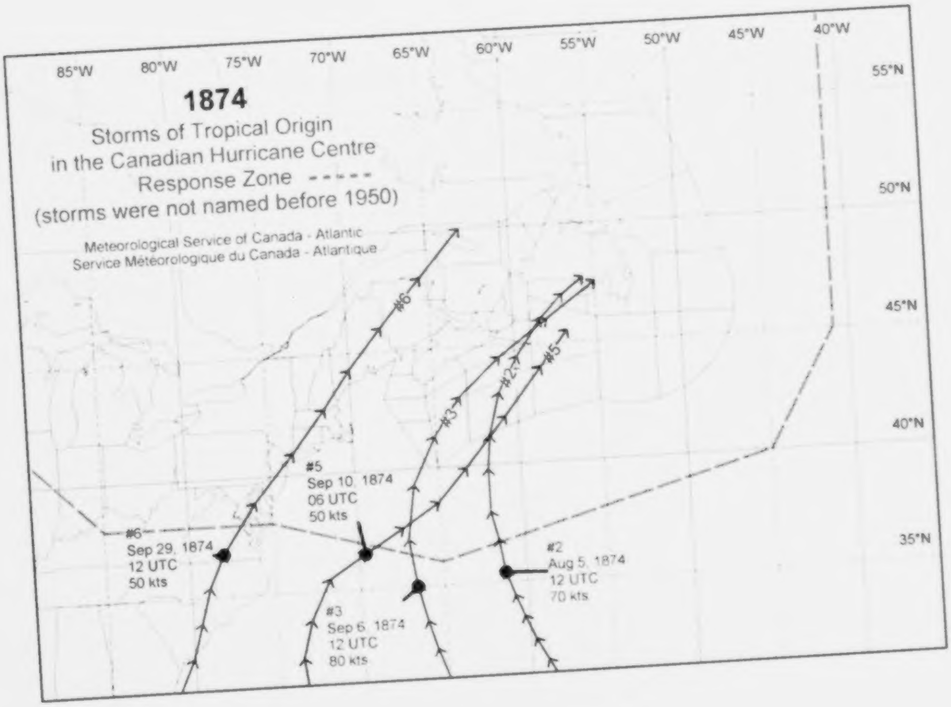
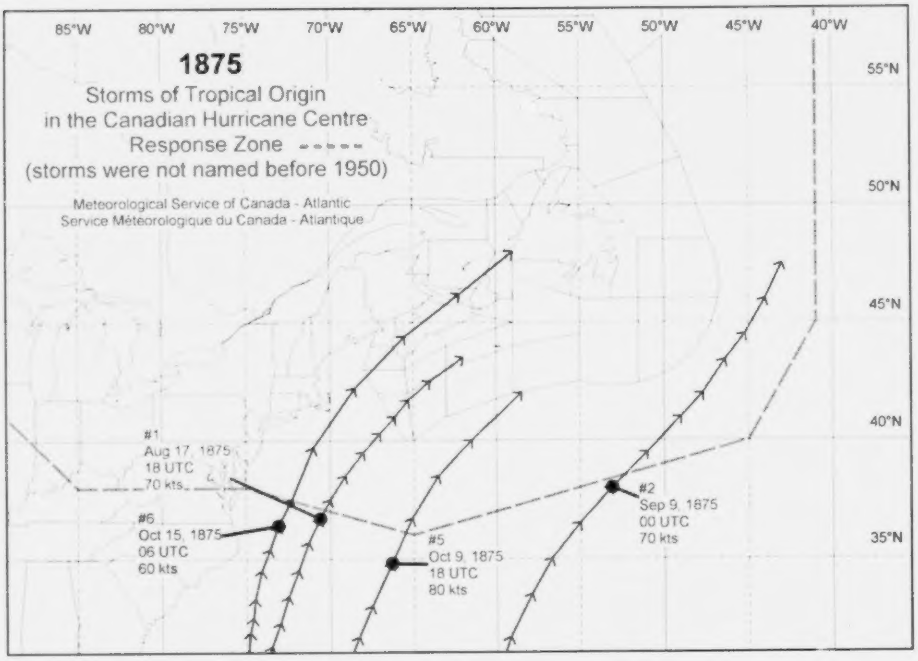
80°W
75°W
70°W
65°W
60°W
55°W
50°W
45°W
40°W
55°N
50°N
45°N
40°N
35°N
1872
Storms of Tropical Origin
in the Canadian Hurricane Centre
Response Zone -----
(storms were not named before 1950)
Meteorological Service of Canada - Atlantic
Service Météorologique du Canada - Atlantique
#2
#5
#5
Oct 26, 1872
00 UTC
40 kts
#2
Aug 30, 1872
18 UTC
90 kts
#3
Sep 17, 1872
06 UTC
70 kts


1873
Storms of Tropical Origin
in the Canadian Hurricane Centre
Response Zone -----
(storms were not named before 1950)
Meteorological Service of Canada - Atlantic
Service Météorologique du Canada - Atlantique
85°W
80°W
75°W
70°W
65°W
60°W
55°W
50°W
45°W
40°W
55°N
50°N
45°N
40°N
35°N
#2
#5
#5
Oct 8, 1873
18 UTC
80 kts
#2
Aug 23, 1873
06 UTC
100 kts


1874
Storms of Tropical Origin
in the Canadian Hurricane Centre
Response Zone -----
(storms were not named before 1950)
Meteorological Service of Canada - Atlantic
Service Météorologique du Canada - Atlantique
85°W
80°W
75°W
70°W
65°W
60°W
55°W
50°W
45°W
40°W
55°N
50°N
45°N
40°N
35°N
#6
#3
#2
#5
#5
Sep 10, 1874
06 UTC
50 kts
#6
Sep 29, 1874
12 UTC
50 kts
#2
Aug 5, 1874
12 UTC
70 kts
#3
Sep 6, 1874
12 UTC
80 kts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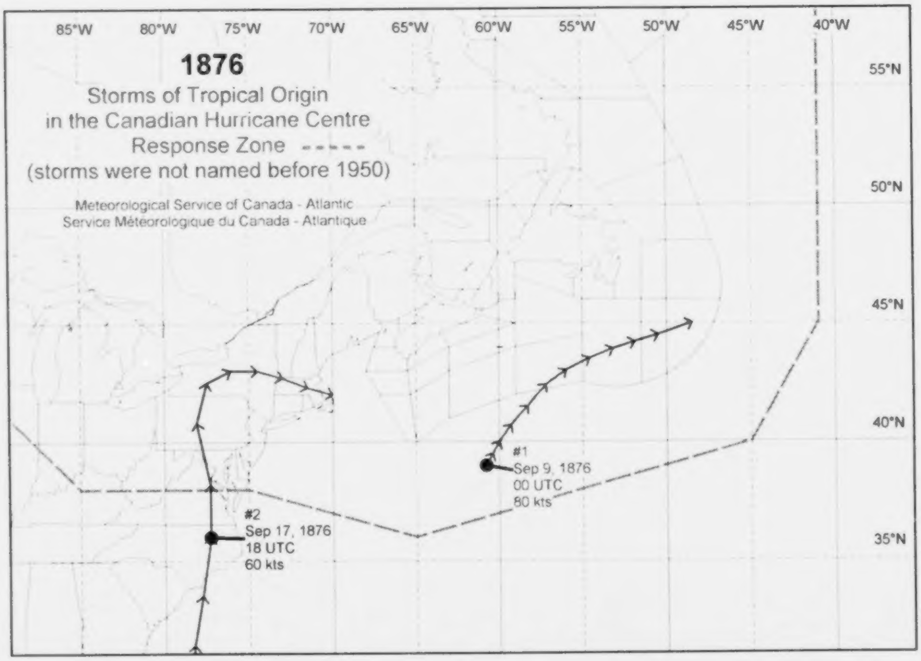
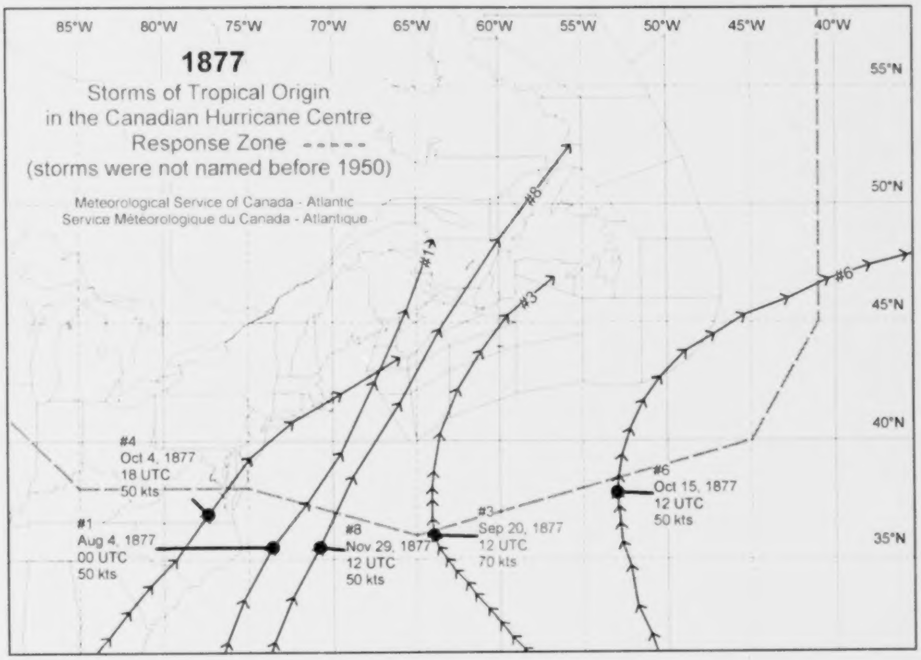
75°W
70°W
65°W
60°W
55°W
50°W
45°W
40°W
55°N
50°N
45°N
40°N
35°N
1875
Storms of Tropical Origin
in the Canadian Hurricane Centre
Response Zone
(storms were not named before 1950)
Meteorological Service of Canada - Atlantic
Service Météorologique du Canada - Atlantique
#1
Aug 17, 1875
18 UTC
70 kts
#6
Oct 15, 1875
06 UTC
60 kts
#5
Oct 9, 1875
18 UTC
80 kts
#2
Sep 9, 1875
00 UTC
70 kts


85°W
80°W
75°W
70°W
65°W
60°W
55°W
50°W
45°W
40°W
55°N
50°N
45°N
40°N
35°N
1876
Storms of Tropical Origin
in the Canadian Hurricane Centre
Response Zone
(storms were not named before 1950)
Meteorological Service of Canada - Atlantic
Service Météorologique du Canada - Atlantique
#1
Sep 9, 1876
00 UTC
80 kts
#2
Sep 17, 1876
18 UTC
60 kts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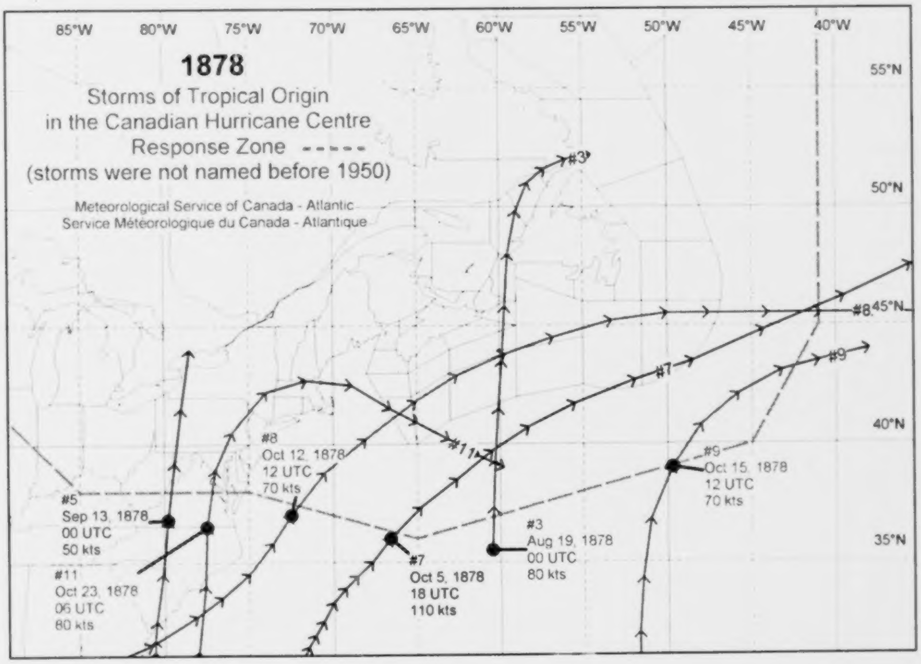
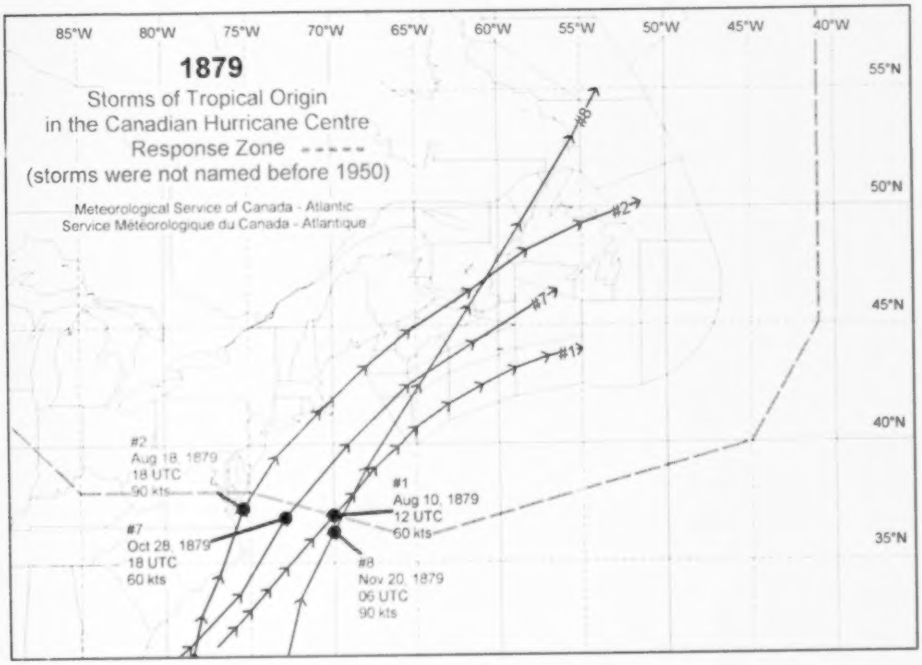
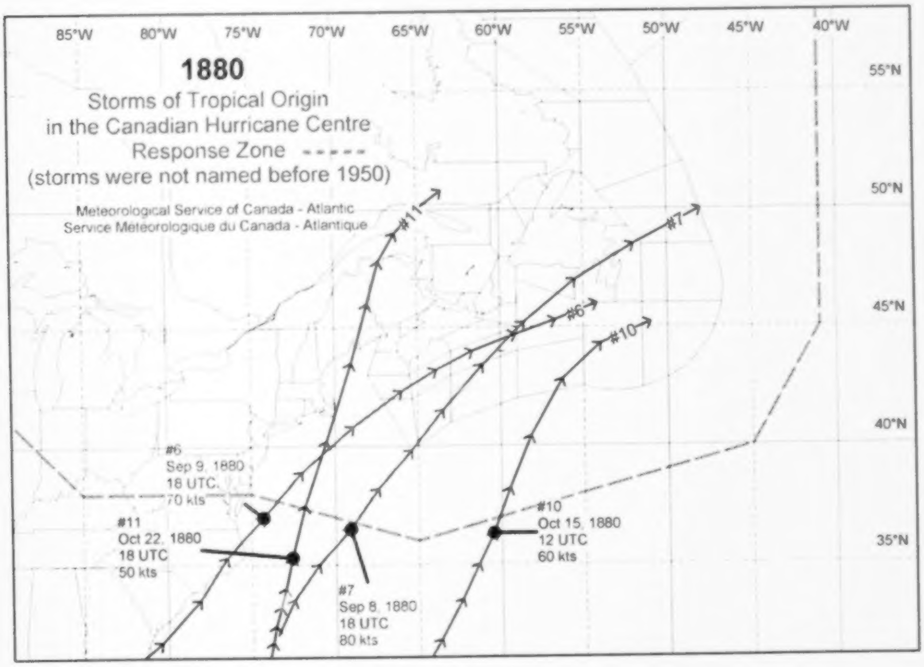
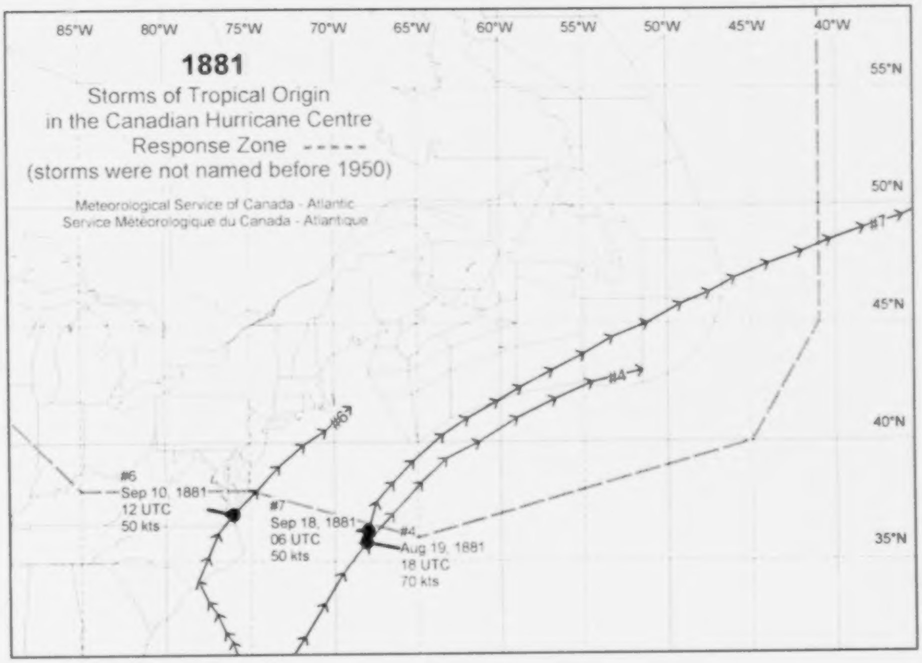
75°W
70°W
65°W
60°W
55°W
50°W
45°W
40°W
55°N
50°N
45°N
40°N
35°N
1877
Storms of Tropical Origin
in the Canadian Hurricane Centre
Response Zone - - - - -
(storms were not named before 1950)
Meteorological Service of Canada - Atlantic
Service Météorologique du Canada - Atlantique
#4
Oct 4, 1877
18 UTC
50 kts
#1
Aug 4, 1877
00 UTC
50 kts
#8
Nov 29, 1877
12 UTC
50 kts
#3
Sep 20, 1877
12 UTC
70 kts
#6
Oct 15, 1877
12 UTC
50 kts
#1
#8
#3
#6

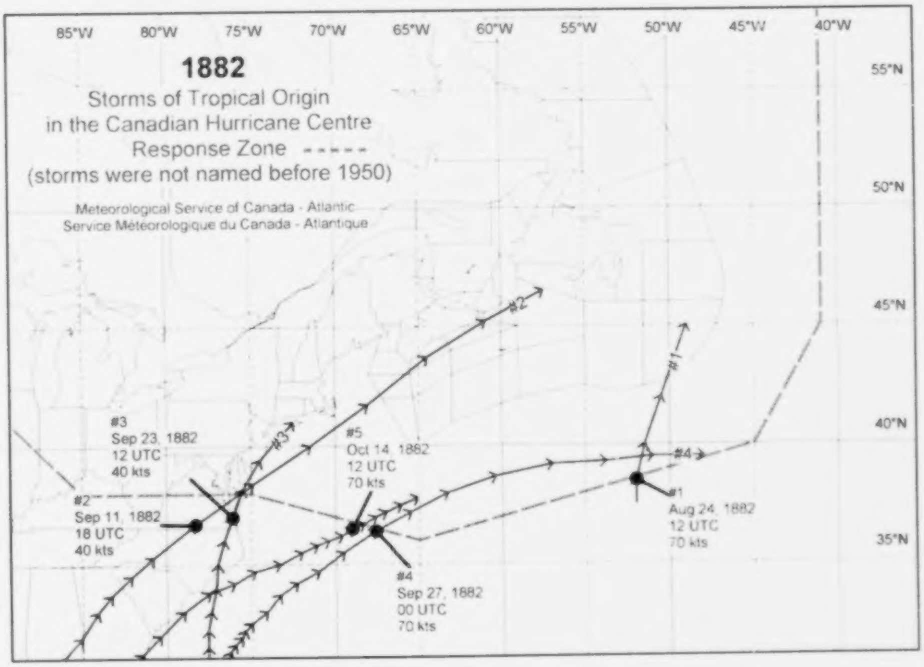

85°W
80°W
75°W
70°W
65°W
60°W
55°W
50°W
45°W
40°W
55°N
50°N
45°N
40°N
35°N
1878
Storms of Tropical Origin
in the Canadian Hurricane Centre
Response Zone - - - - -
(storms were not named before 1950)
Meteorological Service of Canada - Atlantic
Service Météorologique du Canada - Atlantique
#3
#8
#7
#9
#11
#8
Oct 12, 1878
12 UTC
70 kts
#5
Sep 13, 1878
00 UTC
50 kts
#11
Oct 23, 1878
06 UTC
80 kts
#7
Oct 5, 1878
18 UTC
110 kts
#3
Aug 19, 1878
00 UTC
80 kts
#9
Oct 15, 1878
12 UTC
70 kts

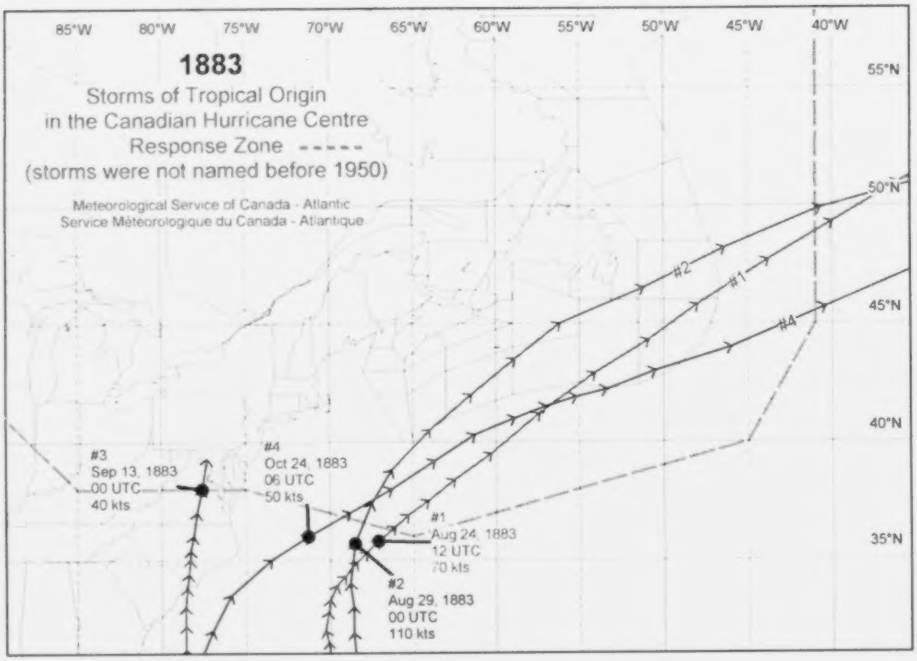

85°W
80°W
75°W
70°W
65°W
60°W
55°W
50°W
45°W
40°W
55°N
50°N
45°N
40°N
35°N
1879
Storms of Tropical Origin
in the Canadian Hurricane Centre
Response Zone
(storms were not named before 1950)
Meteorological Service of Canada - Atlantic
Service Météorologique du Canada - Atlantique
#8
#2
#7
#1
#2
Aug 18, 1879
18 UTC
90 kts
#1
Aug 10, 1879
12 UTC
60 kts
#7
Oct 28, 1879
18 UTC
60 kts
#8
Nov 20, 1879
06 UTC
90 kts

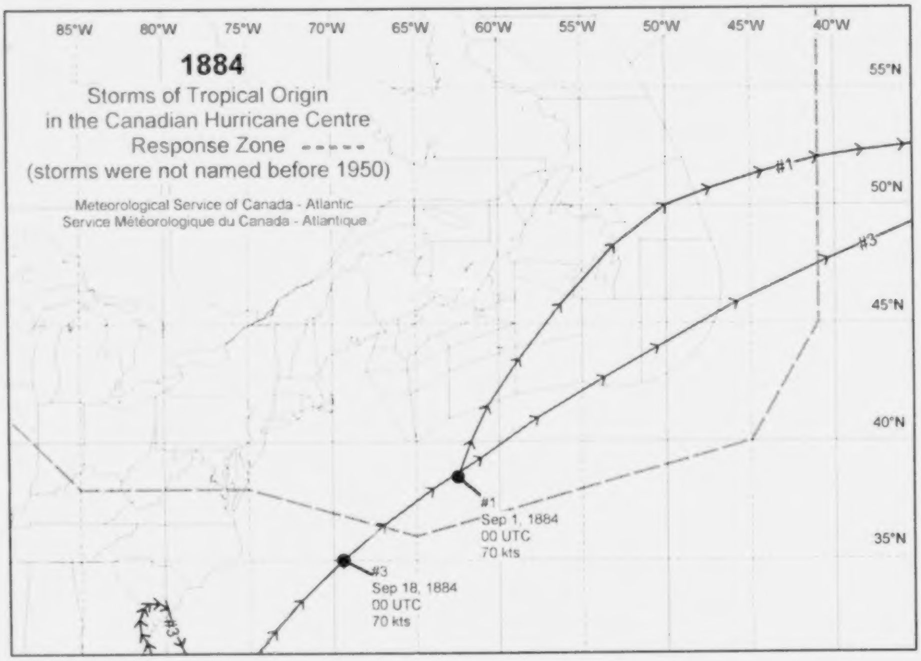
1880's

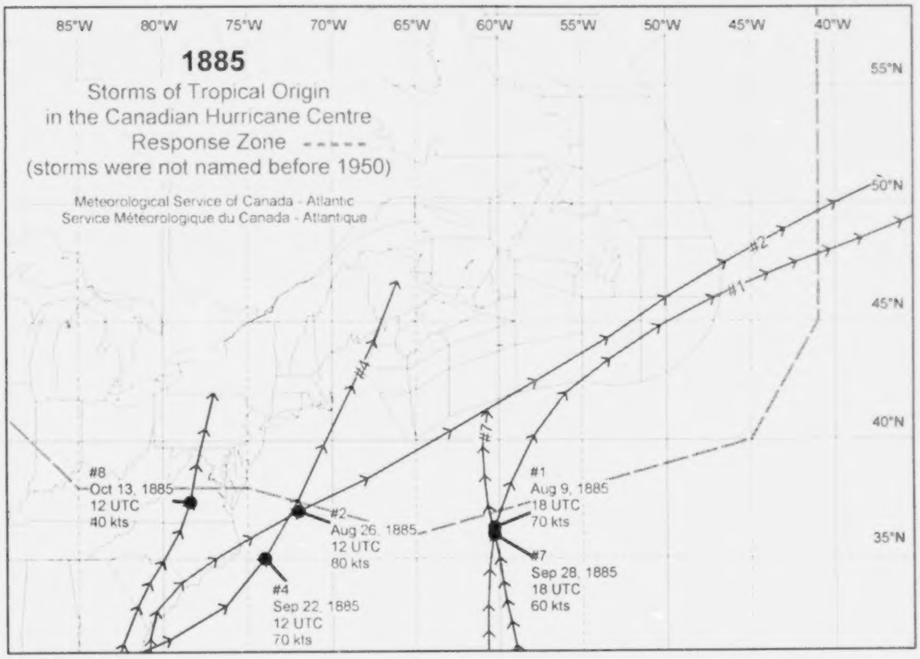

85°W
80°W
75°W
70°W
65°W
60°W
55°W
50°W
45°W
40°W
55°N
50°N
45°N
40°N
35°N
1880
Storms of Tropical Origin
in the Canadian Hurricane Centre
Response Zone
(storms were not named before 1950)
Meteorological Service of Canada - Atlantic
Service Météorologique du Canada - Atlantique
#11
#7
#6
#10
#6
Sep 9, 1880
18 UTC
70 kts
#10
Oct 15, 1880
12 UTC
60 kts
#11
Oct 22, 1880
18 UTC
50 kts
#7
Sep 8, 1880
18 UTC
80 kts

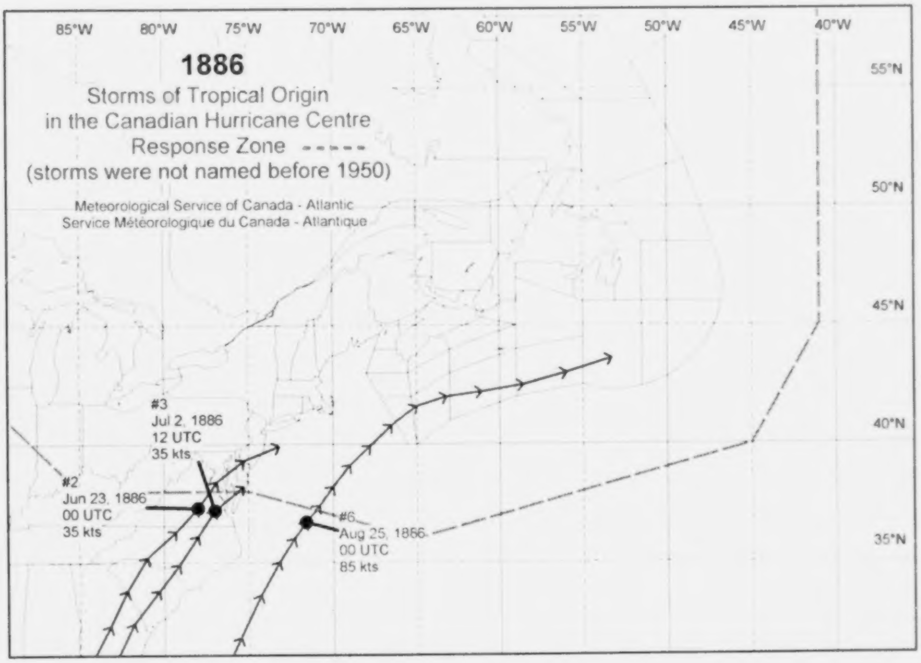

85°W
80°W
75°W
70°W
65°W
60°W
55°W
50°W
45°W
40°W
55°N
50°N
45°N
40°N
35°N
1881
Storms of Tropical Origin
in the Canadian Hurricane Centre
Response Zone -----
(storms were not named before 1950)
Meteorological Service of Canada - Atlantic
Service Météorologique du Canada - Atlantique
#7
#4
#6
#6
Sep 10, 1881
12 UTC
50 kts
#7
Sep 18, 1881
06 UTC
50 kts
#4
Aug 19, 1881
18 UTC
70 kts

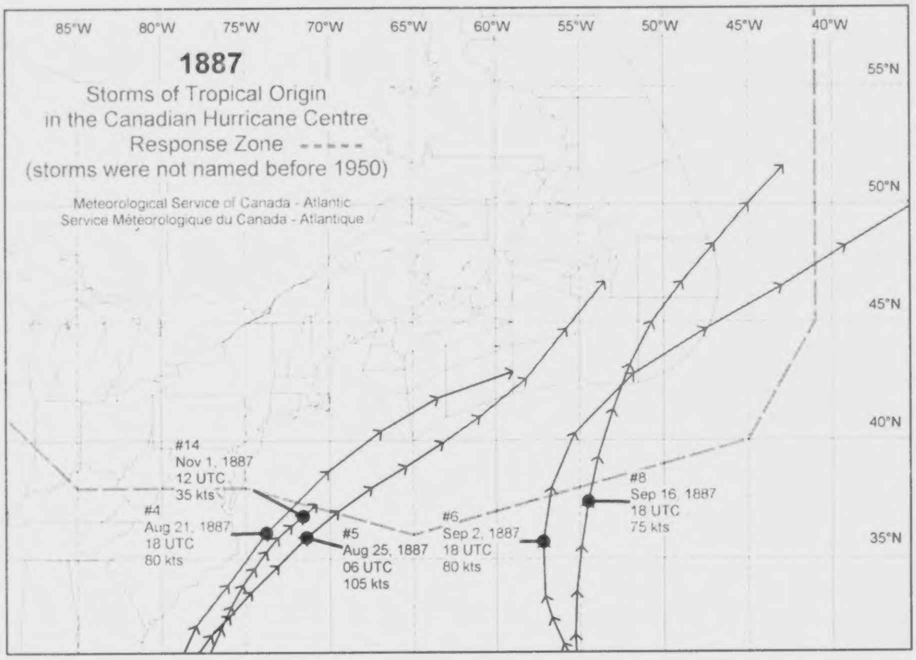

85°W
80°W
75°W
70°W
65°W
60°W
55°W
50°W
45°W
40°W
55°N
50°N
45°N
40°N
35°N
1882
Storms of Tropical Origin
in the Canadian Hurricane Centre
Response Zone -----
(storms were not named before 1950)
Meteorological Service of Canada - Atlantic
Service Météorologique du Canada - Atlantique
#2
#1
#3
#4
#3
Sep 23, 1882
12 UTC
40 kts
#5
Oct 14, 1882
12 UTC
70 kts
#2
Sep 11, 1882
18 UTC
40 kts
#1
Aug 24, 1882
12 UTC
70 kts
#4
Sep 27, 1882
00 UTC
70 kts

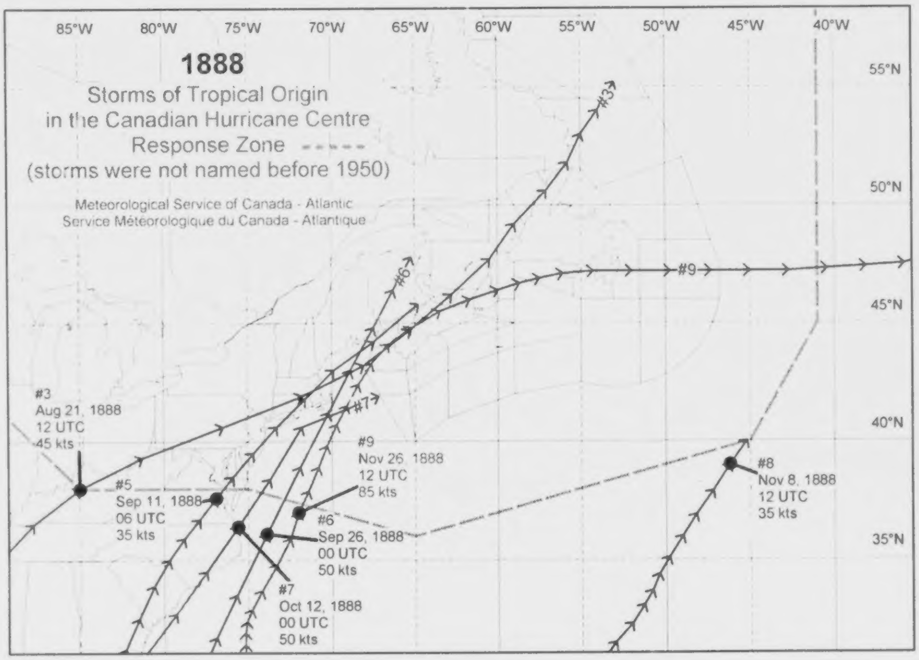

85°W
80°W
75°W
70°W
65°W
60°W
55°W
50°W
45°W
40°W
55°N
50°N
45°N
40°N
35°N
1883
Storms of Tropical Origin
in the Canadian Hurricane Centre
Response Zone -----
(storms were not named before 1950)
Meteorological Service of Canada - Atlantic
Service Météorologique du Canada - Atlantique
#3
Sep 13, 1883
00 UTC
40 kts
#4
Oct 24, 1883
06 UTC
50 kts
#1
Aug 24, 1883
12 UTC
70 kts
#2
Aug 29, 1883
00 UTC
110 kts
#2
#1
#4

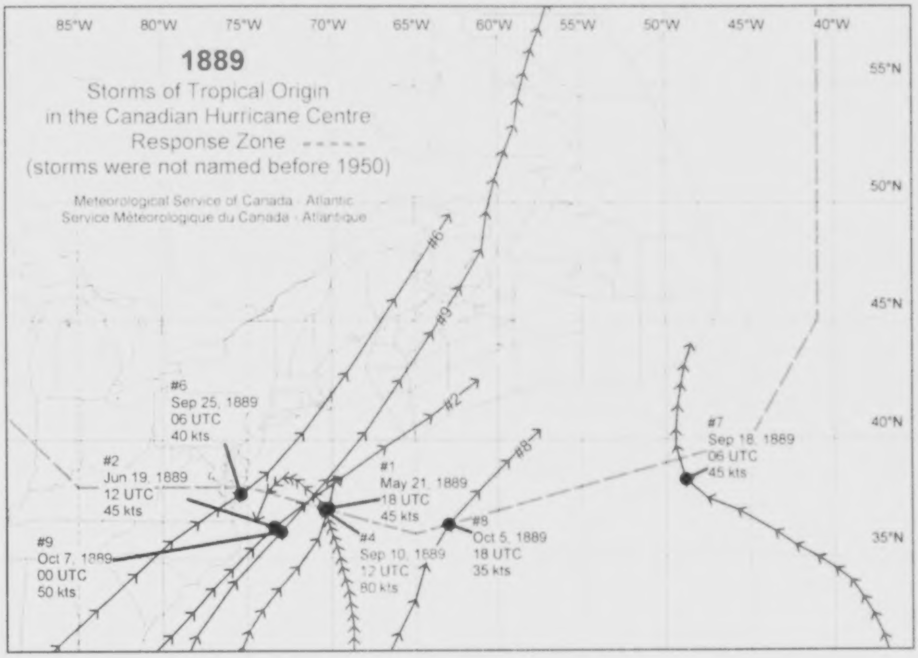

85°W
80°W
75°W
70°W
65°W
60°W
55°W
50°W
45°W
40°W
55°N
50°N
45°N
40°N
35°N
1884
Storms of Tropical Origin
in the Canadian Hurricane Centre
Response Zone -----
(storms were not named before 1950)
Meteorological Service of Canada - Atlantic
Service Météorologique du Canada - Atlantique
#1
Sep 1, 1884
00 UTC
70 kts
#3
Sep 18, 1884
00 UTC
70 kts
#1
#3
#3


85°W
80°W
75°W
70°W
65°W
60°W
55°W
50°W
45°W
40°W
55°N
50°N
45°N
40°N
35°N
1885
Storms of Tropical Origin
in the Canadian Hurricane Centre
Response Zone -----
(storms were not named before 1950)
Meteorological Service of Canada - Atlantic
Service Météorologique du Canada - Atlantique
#1
#2
#4
#7
#8
Oct 13, 1885
12 UTC
40 kts
#2
Aug 26, 1885
12 UTC
80 kts
#4
Sep 22, 1885
12 UTC
70 kts
#1
Aug 9, 1885
18 UTC
70 kts
#7
Sep 28, 1885
18 UTC
60 kts


85°W
80°W
75°W
70°W
65°W
60°W
55°W
50°W
45°W
40°W
55°N
50°N
45°N
40°N
35°N
1886
Storms of Tropical Origin
in the Canadian Hurricane Centre
Response Zone -----
(storms were not named before 1950)
Meteorological Service of Canada - Atlantic
Service Météorologique du Canada - Atlantique
#3
Jul 2, 1886
12 UTC
35 kts
#2
Jun 23, 1886
00 UTC
35 kts
#6
Aug 25, 1886
00 UTC
85 kts


1887
Storms of Tropical Origin
in the Canadian Hurricane Centre
Response Zone -----
(storms were not named before 1950)
Meteorological Service of Canada - Atlantic
Service Météorologique du Canada - Atlantique
85°W
80°W
75°W
70°W
65°W
60°W
55°W
50°W
45°W
40°W
55°N
50°N
45°N
40°N
35°N
#14
Nov 1, 1887
12 UTC
35 kts
#4
Aug 21, 1887
18 UTC
80 kts
#5
Aug 25, 1887
06 UTC
105 kts
#6
Sep 2, 1887
18 UTC
80 kts
#8
Sep 16, 1887
18 UTC
75 kts


1888
Storms of Tropical Origin
in the Canadian Hurricane Centre
Response Zone -----
(storms were not named before 1950)
Meteorological Service of Canada - Atlantic
Service Météorologique du Canada - Atlantique
85°W
80°W
75°W
70°W
65°W
60°W
55°W
50°W
45°W
40°W
55°N
50°N
45°N
40°N
35°N
#3
#6
#9
#7
#3
Aug 21, 1888
12 UTC
45 kts
#5
Sep 11, 1888
06 UTC
35 kts
#9
Nov 26, 1888
12 UTC
85 kts
#6
Sep 26, 1888
00 UTC
50 kts
#7
Oct 12, 1888
00 UTC
50 kts
#8
Nov 8, 1888
12 UTC
35 kts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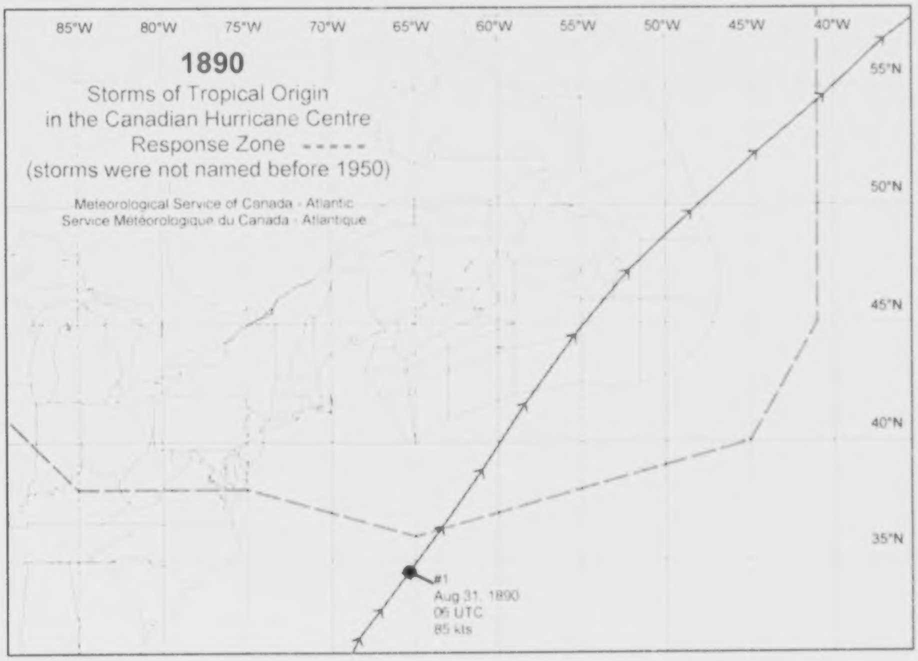
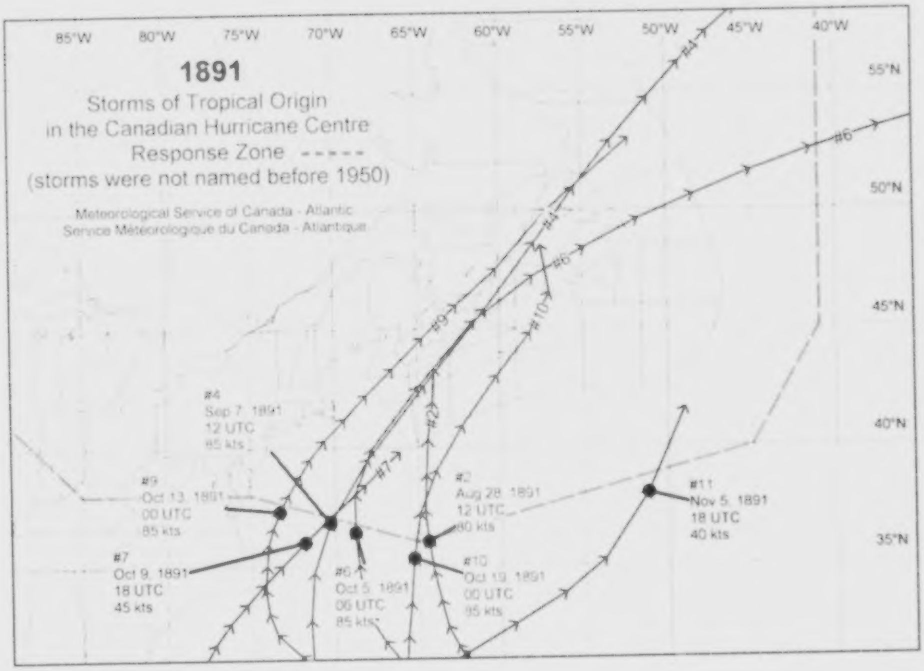
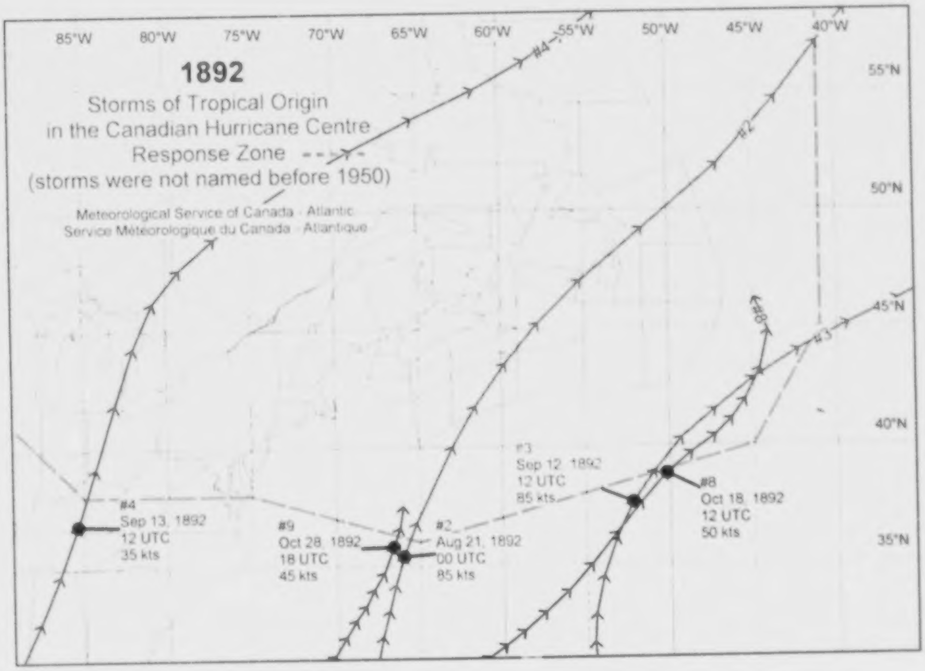
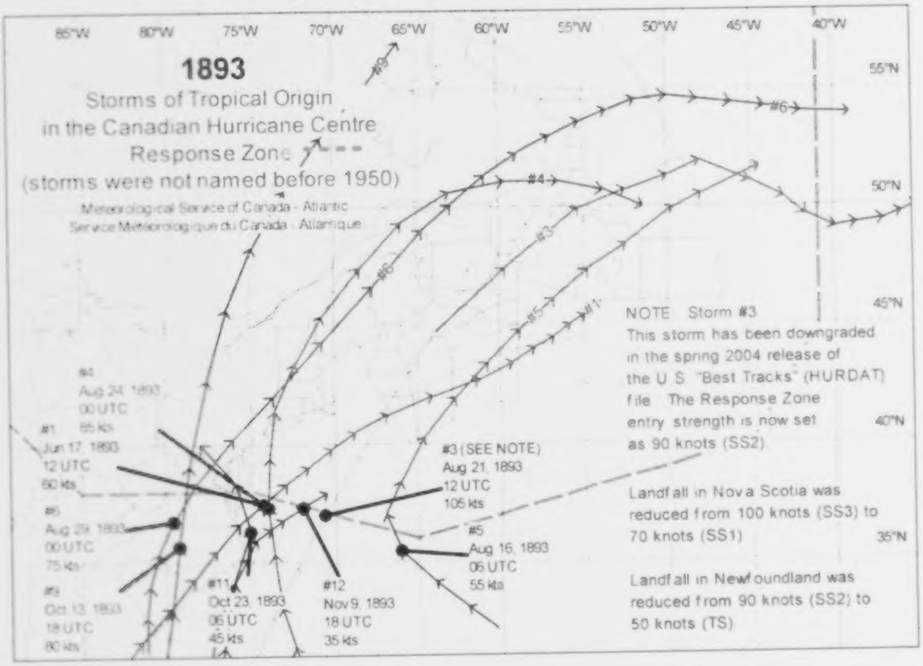
80°W
75°W
70°W
65°W
60°W
55°W
50°W
45°W
40°W
55°N
50°N
45°N
40°N
35°N
1889
Storms of Tropical Origin
in the Canadian Hurricane Centre
Response Zone -----
(storms were not named before 1950)
Meteorological Service of Canada - Atlantic
Service Météorologique du Canada - Atlantique
#6
#9
#2
#8
#6
Sep 25, 1889
06 UTC
40 kts
#2
Jun 19, 1889
12 UTC
45 kts
#1
May 21, 1889
18 UTC
45 kts
#9
Oct 7, 1889
00 UTC
50 kts
#4
Sep 10, 1889
12 UTC
80 kts
#8
Oct 5, 1889
18 UTC
35 kts
#7
Sep 18, 1889
06 UTC
45 kts

1890's


85°W
80°W
75°W
70°W
65°W
60°W
55°W
50°W
45°W
40°W
55°N
50°N
45°N
40°N
35°N
1890
Storms of Tropical Origin
in the Canadian Hurricane Centre
Response Zone -----
(storms were not named before 1950)
Meteorological Service of Canada - Atlantic
Service Météorologique du Canada - Atlantique
#1
Aug 31, 1890
06 UTC
85 kts


85°W
80°W
75°W
70°W
65°W
60°W
55°W
50°W
45°W
40°W
55°N
50°N
45°N
40°N
35°N
1891
Storms of Tropical Origin
in the Canadian Hurricane Centre
Response Zone - - - - -
(storms were not named before 1950)
Meteorological Service of Canada - Atlantic
Service Météorologique du Canada - Atlantique
#4
#6
#9
#10
#2
#7
#4
Sep 7, 1891
12 UTC
85 kts
#9
Oct 13, 1891
00 UTC
85 kts
#7
Oct 9, 1891
18 UTC
45 kts
#6
Oct 5, 1891
06 UTC
85 kts
#2
Aug 28, 1891
12 UTC
80 kts
#10
Oct 19, 1891
00 UTC
85 kts
#11
Nov 5, 1891
18 UTC
40 kts

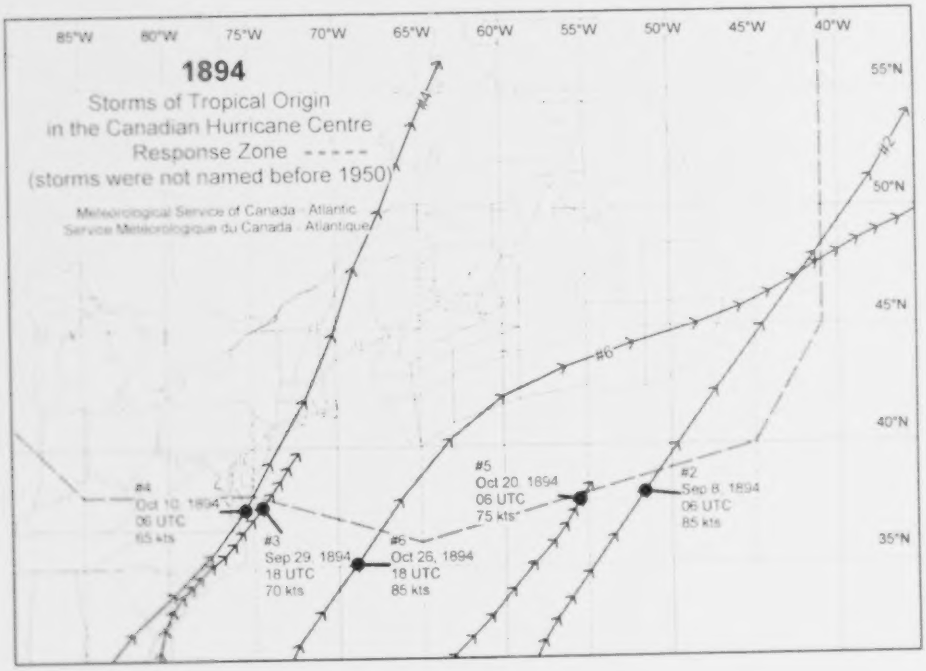

85°W
80°W
75°W
70°W
65°W
60°W
55°W
50°W
45°W
40°W
55°N
50°N
45°N
40°N
35°N
1892
Storms of Tropical Origin
in the Canadian Hurricane Centre
Response Zone - - - - -
(storms were not named before 1950)
Meteorological Service of Canada - Atlantic
Service Météorologique du Canada - Atlantique
#4
#2
#8
#3
#4
Sep 13, 1892
12 UTC
35 kts
#9
Oct 28, 1892
18 UTC
45 kts
#2
Aug 21, 1892
00 UTC
85 kts
#3
Sep 12, 1892
12 UTC
85 kts
#8
Oct 18, 1892
12 UTC
50 kts

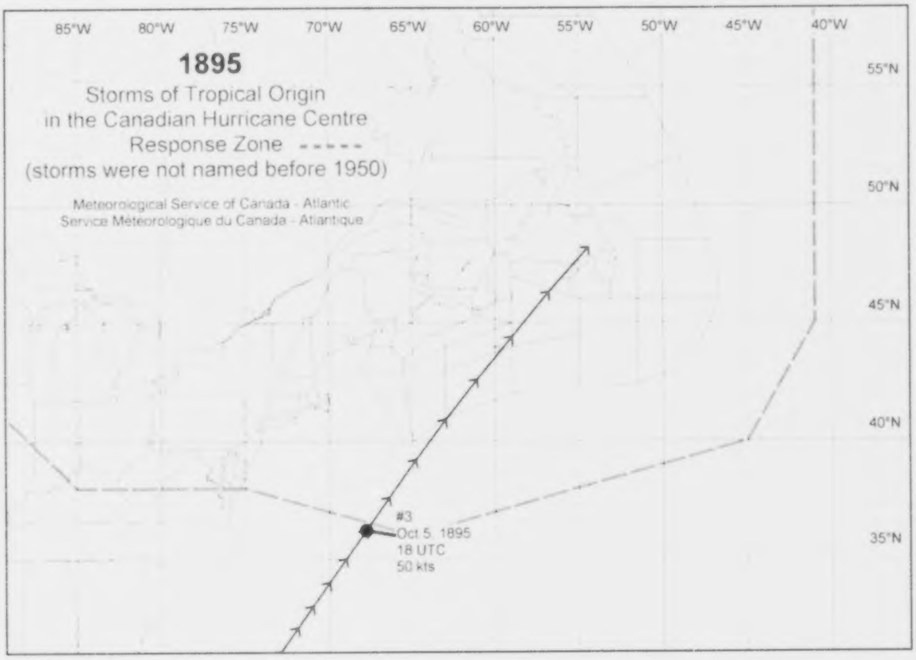

85°W
80°W
75°W
70°W
65°W
60°W
55°W
50°W
45°W
40°W
55°N
50°N
45°N
40°N
35°N
1893
Storms of Tropical Origin
in the Canadian Hurricane Centre
Response Zone - - - -
(storms were not named before 1950)
Meteorological Service of Canada - Atlantic
Service Météorologique du Canada - Atlantique
#9
#6
#4
#3
#5
#1
#4
Aug 24, 1893
00 UTC
85 kts
#1
Jun 17, 1893
12 UTC
60 kts
#6
Aug 29, 1893
00 UTC
75 kts
#9
Oct 13, 1893
18 UTC
80 kts
#11
Oct 23, 1893
06 UTC
45 kts
#12
Nov 9, 1893
18 UTC
35 kts
#3 (SEE NOTE)
Aug 21, 1893
12 UTC
105 kts
#5
Aug 16, 1893
06 UTC
55 kts

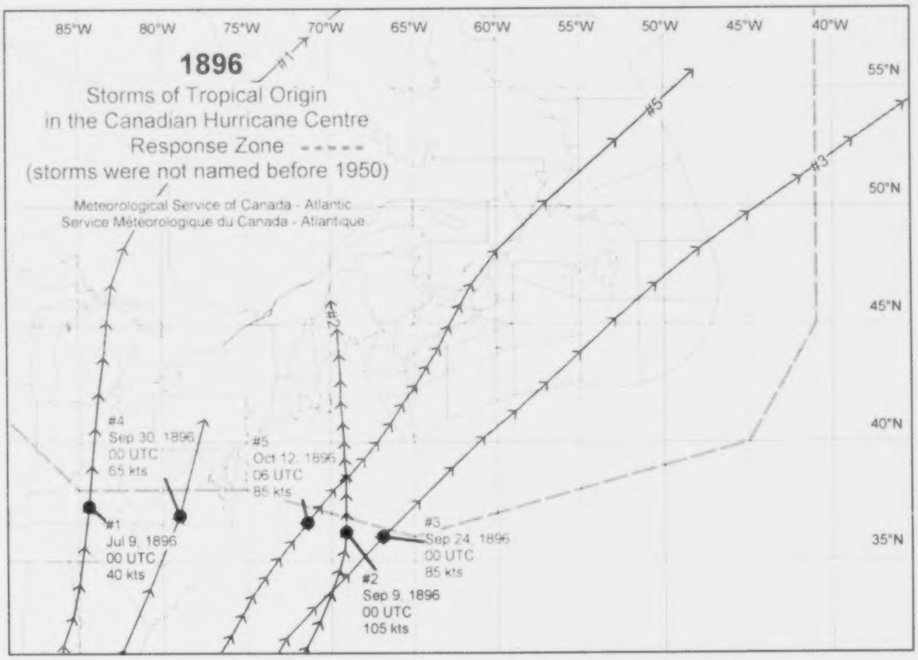
NOTE Storm #3
This storm has been downgraded in the spring 2004 release of the U.S. "Best Tracks" (HURDAT) file. The Response Zone entry strength is now set as 90 knots (SS2).

Landfall in Nova Scotia was reduced from 100 knots (SS3) to 70 knots (SS1).

Landfall in Newfoundland was reduced from 90 knots (SS2) to 50 knots (TS).


85°W
80°W
75°W
70°W
65°W
60°W
55°W
50°W
45°W
40°W
55°N
50°N
45°N
40°N
35°N
1894
Storms of Tropical Origin
in the Canadian Hurricane Centre
Response Zone - - - - -
(storms were not named before 1950)
Meteorological Service of Canada - Atlantic
Service Météorologique du Canada - Atlantique
#4
#2
#6
#4
Oct 10, 1894
06 UTC
65 kts
#3
Sep 29, 1894
18 UTC
70 kts
#6
Oct 26, 1894
18 UTC
85 kts
#5
Oct 20, 1894
06 UTC
75 kts
#2
Sep 8, 1894
06 UTC
85 kts


85°W
80°W
75°W
70°W
65°W
60°W
55°W
50°W
45°W
40°W
55°N
50°N
45°N
40°N
35°N
1895
Storms of Tropical Origin
in the Canadian Hurricane Centre
Response Zone - - - - -
(storms were not named before 1950)
Meteorological Service of Canada - Atlantic
Service Météorologique du Canada - Atlantique
#3
Oct 5, 1895
18 UTC
50 kts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75°W
70°W
65°W
60°W
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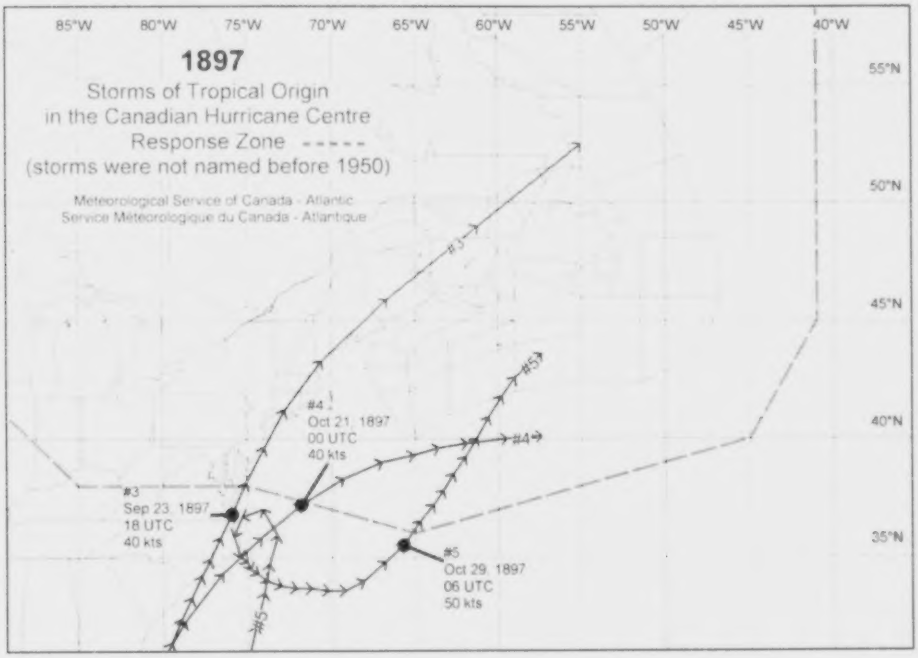
45°W
40°W
55°N
50°N
45°N
40°N
35°N
1896
Storms of Tropical Origin
in the Canadian Hurricane Centre
Response Zone - - - - -
(storms were not named before 1950)
Meteorological Service of Canada - Atlantic
Service Météorologique du Canada - Atlantique
#1
#5
#3
#2
#4
Sep 30, 1896
00 UTC
65 kts
#5
Oct 12, 1896
06 UTC
85 kts
#1
Jul 9, 1896
00 UTC
40 kts
#3
Sep 24, 1896
00 UTC
85 kts
#2
Sep 9, 1896
00 UTC
105 kts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75°W
70°W
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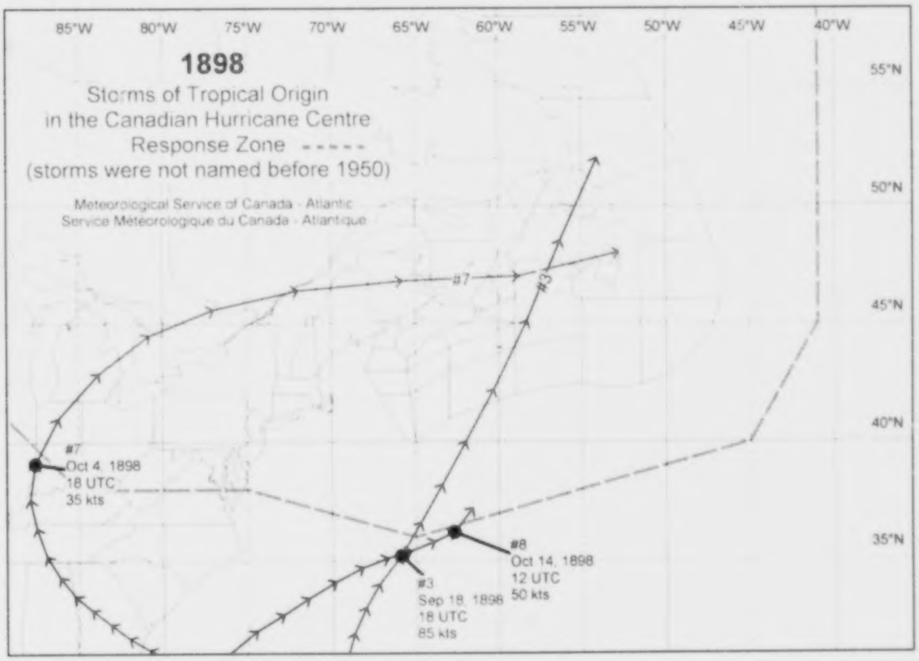
60°W
55°W
50°W
45°W
40°W
55°N
50°N
45°N
40°N
35°N
1897
Storms of Tropical Origin
in the Canadian Hurricane Centre
Response Zone -----
(storms were not named before 1950)
Meteorological Service of Canada - Atlantic
Service Météorologique du Canada - Atlantique
#3
#4
Oct 21, 1897
00 UTC
40 kts
#5
#4
#3
Sep 23, 1897
18 UTC
40 kts
#5
Oct 29, 1897
06 UTC
50 kts
#5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75°W
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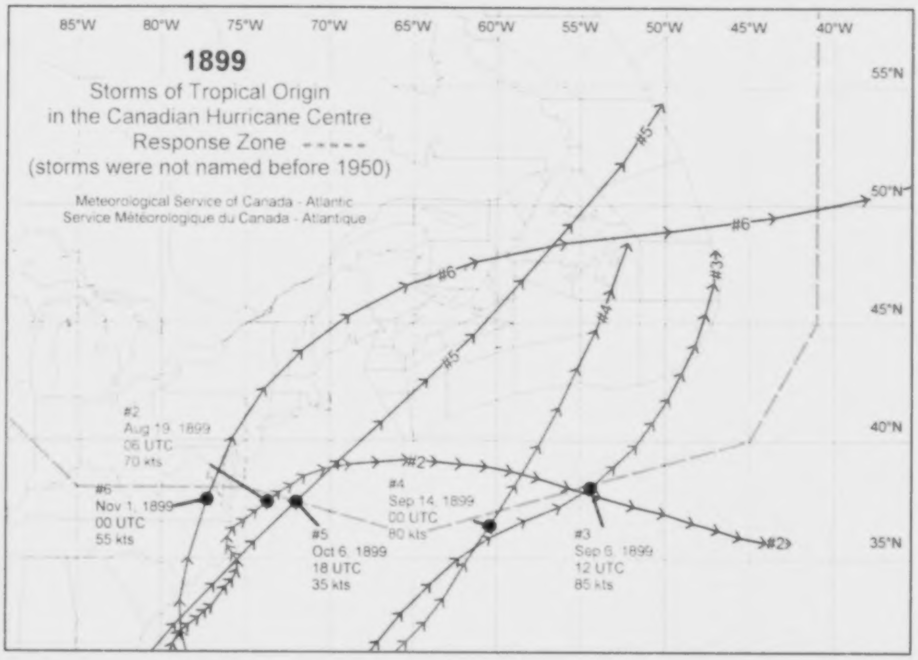
65°W
60°W
55°W
50°W
45°W
40°W
55°N
50°N
45°N
40°N
35°N
1898
Storms of Tropical Origin
in the Canadian Hurricane Centre
Response Zone -----
(storms were not named before 1950)
Meteorological Service of Canada - Atlantic
Service Météorologique du Canada - Atlantique
#7
#3
#7
Oct 4, 1898
18 UTC
35 kts
#8
Oct 14, 1898
12 UTC
50 kts
#3
Sep 18, 1898
18 UTC
85 kts

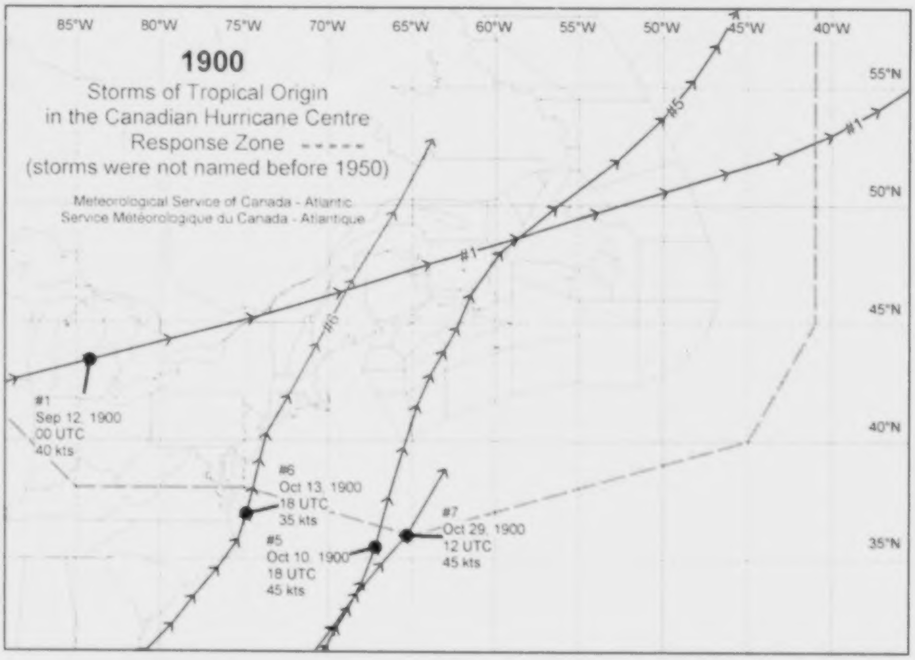


1899
Storms of Tropical Origin
in the Canadian Hurricane Centre
Response Zone - - - - -
(storms were not named before 1950)

Meteorological Service of Canada - Atlantic
Service Météorologique du Canada - Atlantique

85°W
80°W
75°W
70°W
65°W
60°W
55°W
50°W
45°W
40°W
55°N
50°N
45°N
40°N
35°N
#5
#6
#4
#3
#2
#2
Aug 19, 1899
06 UTC
70 kts
#6
Nov 1, 1899
00 UTC
55 kts
#5
Oct 6, 1899
18 UTC
35 kts
#4
Sep 14, 1899
00 UTC
80 kts
#3
Sep 6, 1899
12 UTC
85 kts

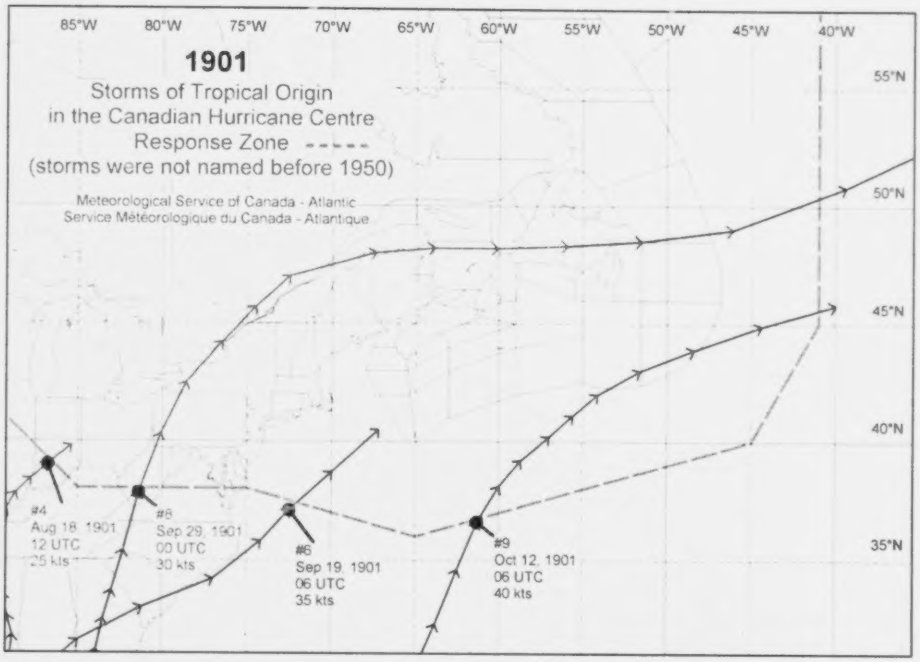
1900's

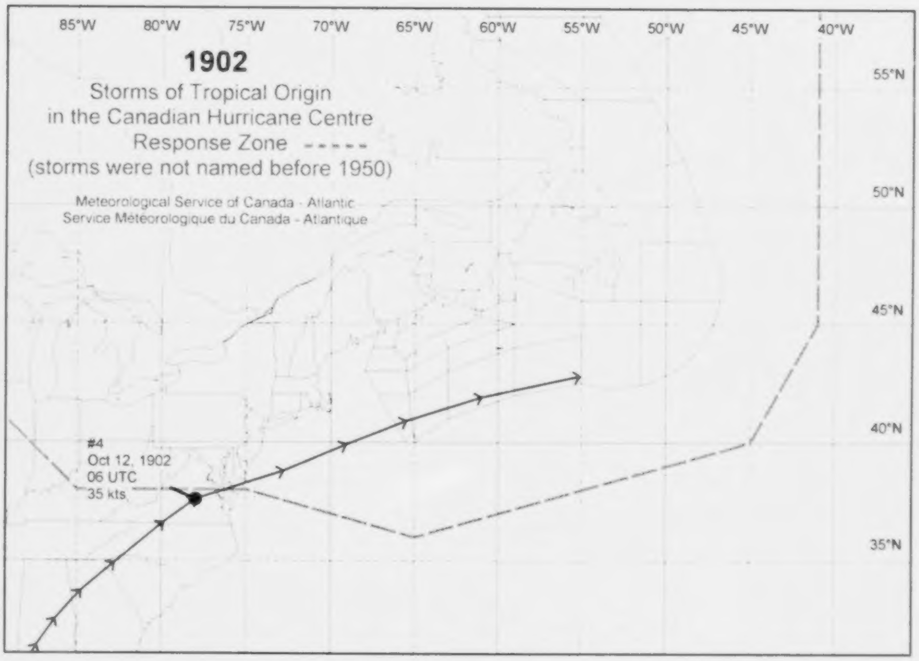


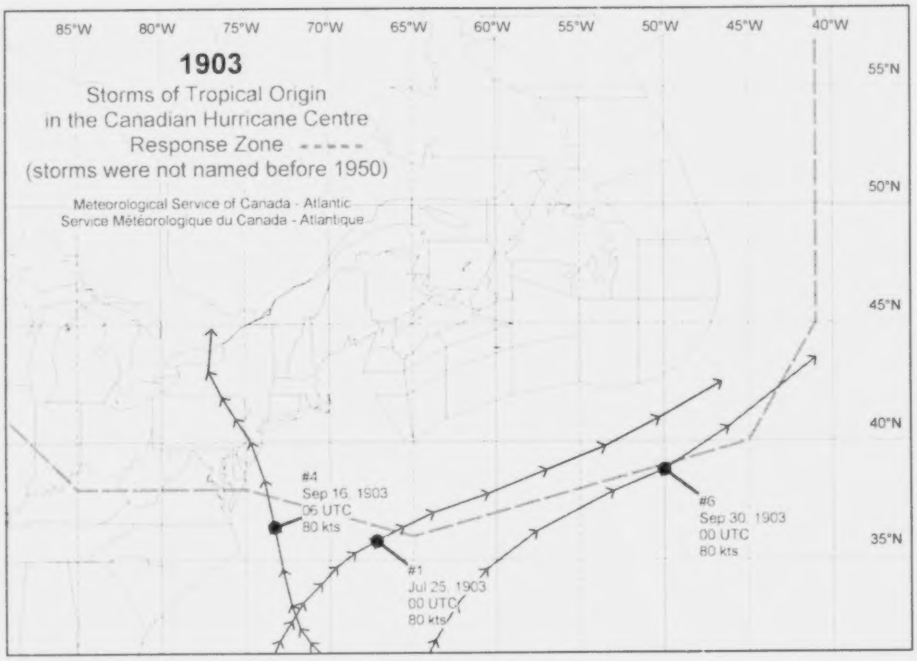
1900
Storms of Tropical Origin
in the Canadian Hurricane Centre
Response Zone - - - - -
(storms were not named before 1950)

Meteorological Service of Canada - Atlantic
Service Météorologique du Canada - Atlantique

85°W
80°W
75°W
70°W
65°W
60°W
55°W
50°W
45°W
40°W
55°N
50°N
45°N
40°N
35°N
#5
#1
#1
#6
#1
Sep 12, 1900
00 UTC
40 kts
#6
Oct 13, 1900
18 UTC
35 kts
#5
Oct 10, 1900
18 UTC
45 kts
#7
Oct 29, 1900
12 UTC
45 kts


1901
Storms of Tropical Origin
in the Canadian Hurricane Centre
Response Zone -----
(storms were not named before 1950)
Meteorological Service of Canada - Atlantic
Service Météorologique du Canada - Atlantique
85°W
80°W
75°W
70°W
65°W
60°W
55°W
50°W
45°W
40°W
55°N
50°N
45°N
40°N
35°N
#4
Aug 18, 1901
12 UTC
25 kts
#8
Sep 29, 1901
00 UTC
30 kts
#6
Sep 19, 1901
06 UTC
35 kts
#9
Oct 12, 1901
06 UTC
40 kts


1902
Storms of Tropical Origin
in the Canadian Hurricane Centre
Response Zone -----
(storms were not named before 1950)
Meteorological Service of Canada - Atlantic
Service Météorologique du Canada - Atlantique
85°W
80°W
75°W
70°W
65°W
60°W
55°W
50°W
45°W
40°W
55°N
50°N
45°N
40°N
35°N
#4
Oct 12, 1902
06 UTC
35 kts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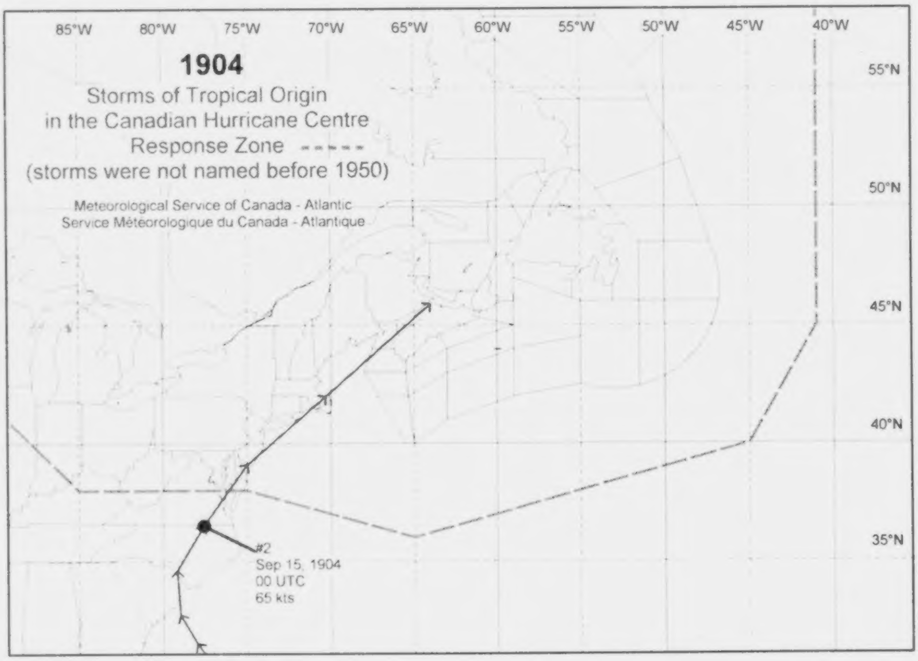
60°W
55°W
50°W
45°W
40°W
55°N
50°N
45°N
40°N
35°N
1903
Storms of Tropical Origin
in the Canadian Hurricane Centre
Response Zone
(storms were not named before 1950)
Meteorological Service of Canada - Atlantic
Service Météorologique du Canada - Atlantique
#4
Sep 16, 1903
06 UTC
80 kts
#1
Jul 25, 1903
00 UTC
80 kts
#6
Sep 30, 1903
00 UTC
80 kts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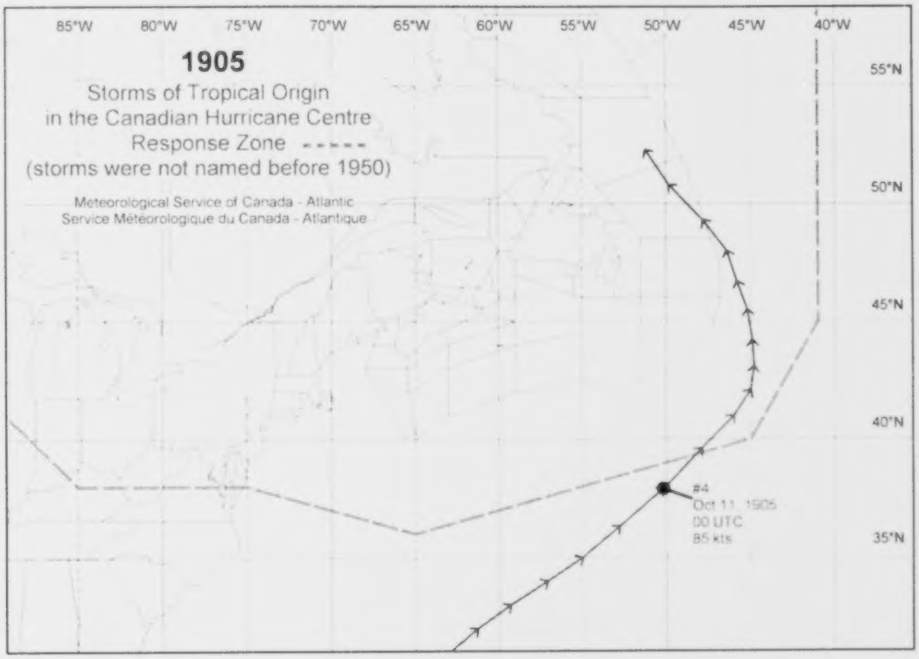
75°W
70°W
65°W
60°W
55°W
50°W
45°W
40°W
55°N
50°N
45°N
40°N
35°N
1904
Storms of Tropical Origin
in the Canadian Hurricane Centre
Response Zone
(storms were not named before 1950)
Meteorological Service of Canada - Atlantic
Service Météorologique du Canada - Atlantique
#2
Sep 15, 1904
00 UTC
65 kts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80°W
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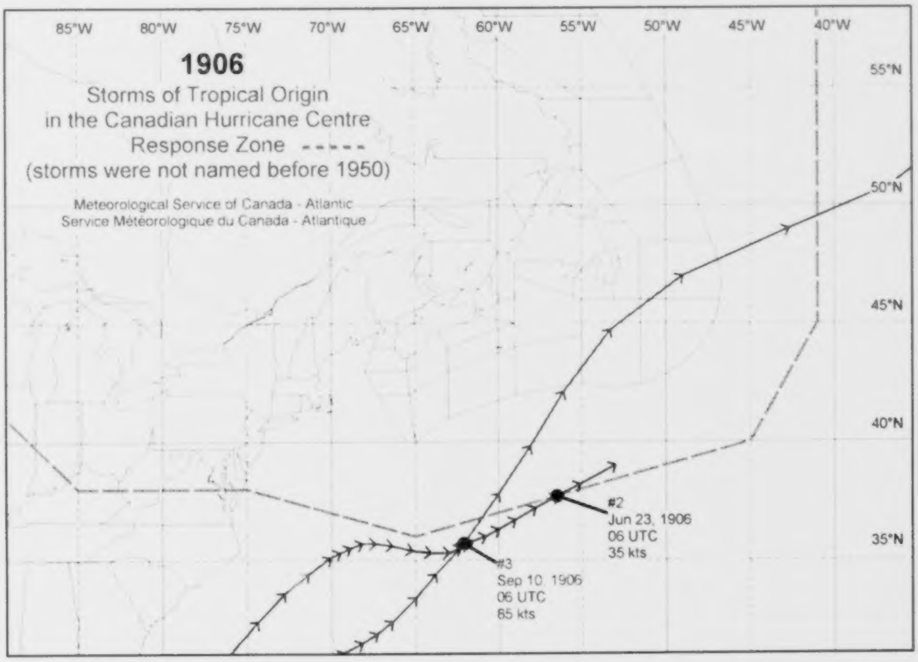
70°W
65°W
60°W
55°W
50°W
45°W
40°W
55°N
50°N
45°N
40°N
35°N
1905
Storms of Tropical Origin
in the Canadian Hurricane Centre
Response Zone -----
(storms were not named before 1950)
Meteorological Service of Canada - Atlantic
Service Météorologique du Canada - Atlantique
#4
Oct 11, 1905
00 UTC
85 kts


85°W
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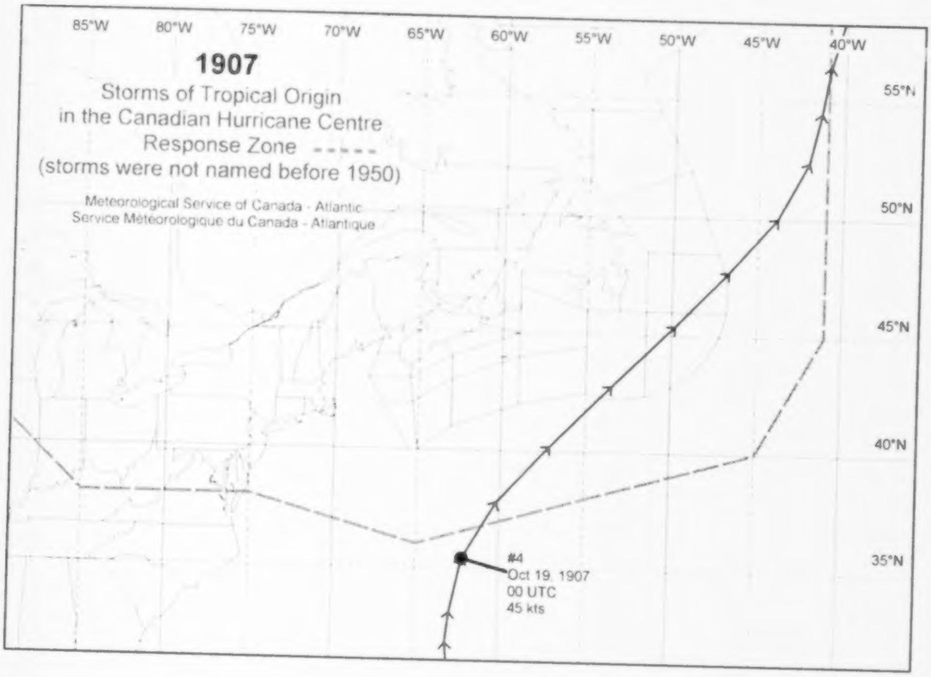
70°W
65°W
60°W
55°W
50°W
45°W
40°W
55°N
50°N
45°N
40°N
35°N
1906
Storms of Tropical Origin
in the Canadian Hurricane Centre
Response Zone -----
(storms were not named before 1950)
Meteorological Service of Canada - Atlantic
Service Météorologique du Canada - Atlantique
#2
Jun 23, 1906
06 UTC
35 kts
#3
Sep 10, 1906
06 UTC
85 kts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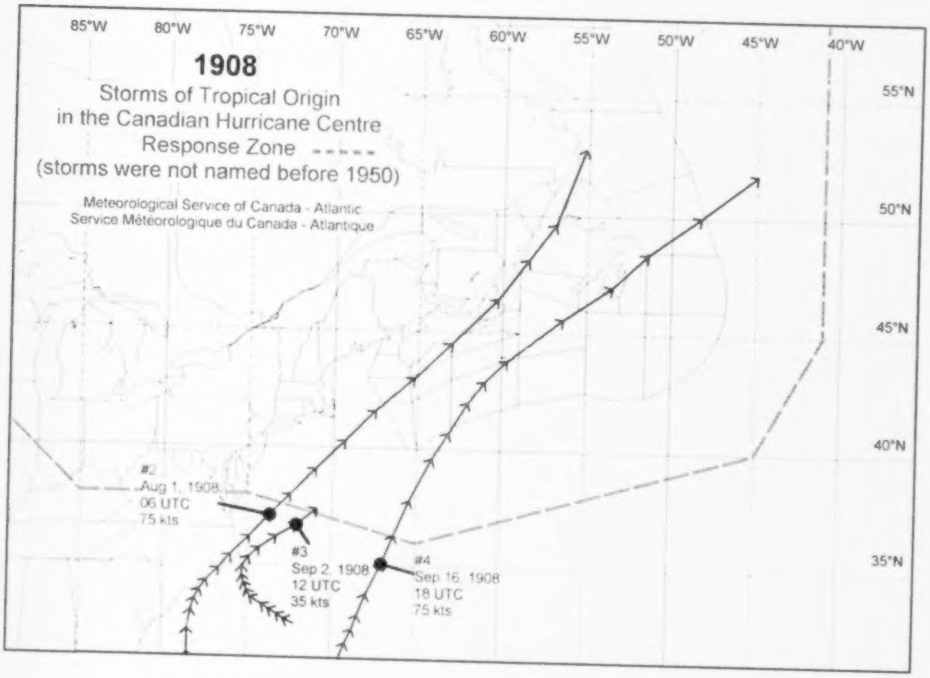
75°W
70°W
65°W
60°W
55°W
50°W
45°W
40°W
55°N
50°N
45°N
40°N
35°N
1907
Storms of Tropical Origin
in the Canadian Hurricane Centre
Response Zone -----
(storms were not named before 1950)
Meteorological Service of Canada - Atlantic
Service Météorologique du Canada - Atlantique
#4
Oct 19, 1907
00 UTC
45 kts


85°W
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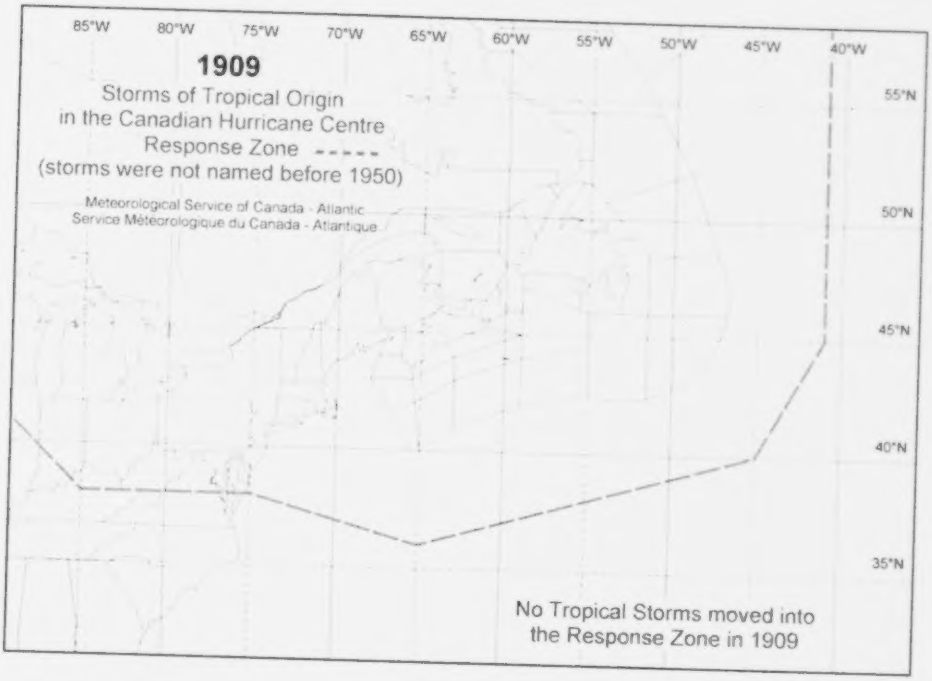
75°W
70°W
65°W
60°W
55°W
50°W
45°W
40°W
55°N
50°N
45°N
40°N
35°N
1908
Storms of Tropical Origin
in the Canadian Hurricane Centre
Response Zone -----
(storms were not named before 1950)
Meteorological Service of Canada - Atlantic
Service Météorologique du Canada - Atlantique
#2
Aug 1, 1908
06 UTC
75 kts
#3
Sep 2, 1908
12 UTC
35 kts
#4
Sep 16, 1908
18 UTC
75 kts



1909

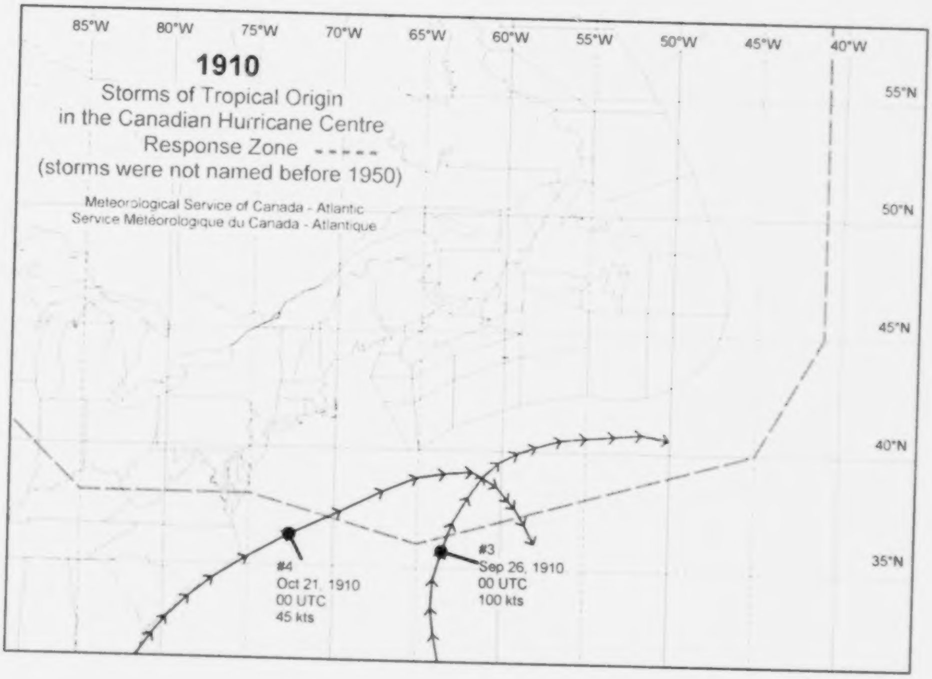
Storms of Tropical Origin
in the Canadian Hurricane Centre
Response Zone - - - - -
(storms were not named before 1950)

Meteorological Service of Canada - Atlantic
Service Météorologique du Canada - Atlantique

No Tropical Storms moved into
the Response Zone in 1909

85°W
80°W
75°W
70°W
65°W
60°W
55°W
50°W
45°W
40°W
55°N
50°N
45°N
40°N
35°N

1910's

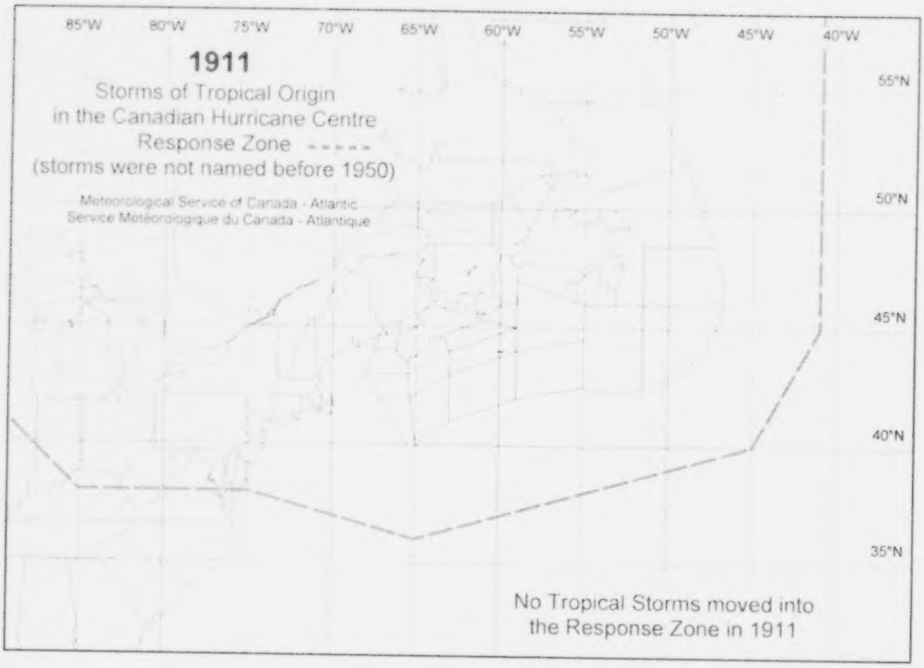


1910

Storms of Tropical Origin
in the Canadian Hurricane Centre
Response Zone - - - - -
(storms were not named before 1950)

Meteorological Service of Canada - Atlantic
Service Météorologique du Canada - Atlantique

85°W
80°W
75°W
70°W
65°W
60°W
55°W
50°W
45°W
40°W
55°N
50°N
45°N
40°N
35°N
#4
Oct 21, 1910
00 UTC
45 kts
#3
Sep 26, 1910
00 UTC
100 kts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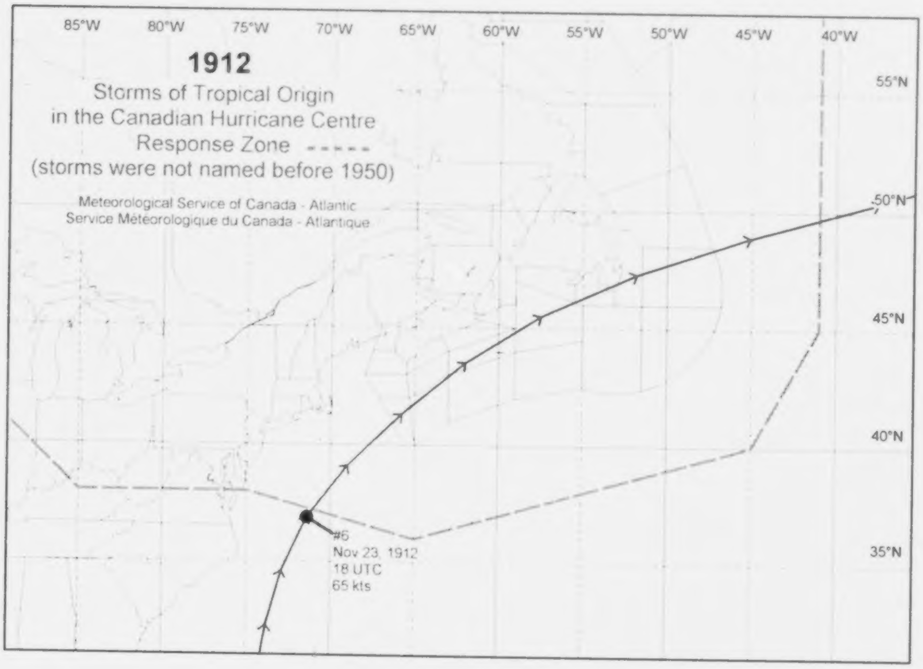
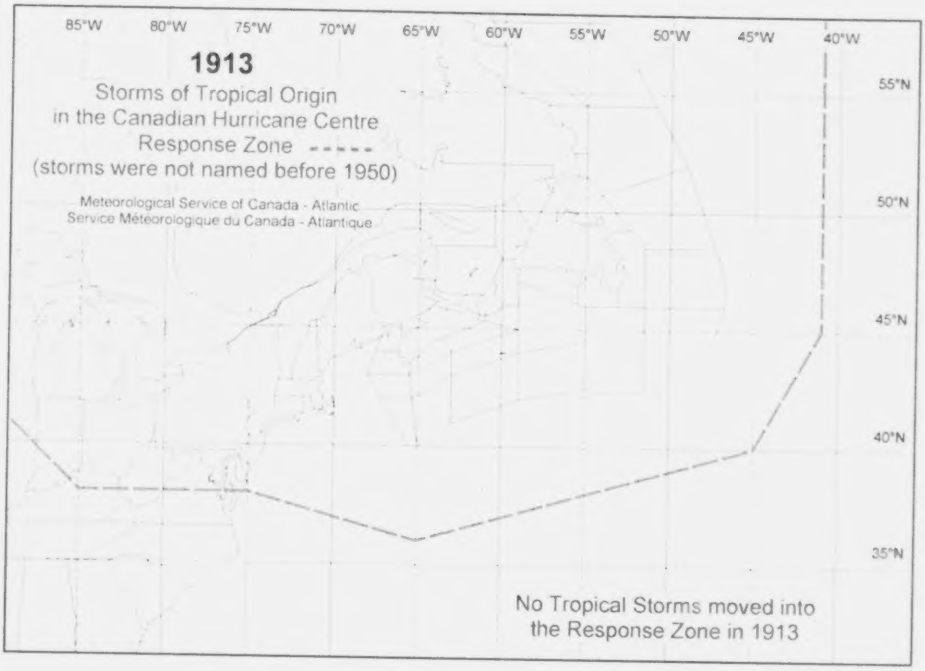
80°W
75°W
70°W
65°W
60°W
55°W
50°W
45°W
40°W
55°N
50°N
45°N
40°N
35°N
1911
Storms of Tropical Origin
in the Canadian Hurricane Centre
Response Zone - - - - -
(storms were not named before 1950)
Meteorological Service of Canada - Atlantic
Service Météorologique du Canada - Atlantique
No Tropical Storms moved into
the Response Zone in 1911


85°W
80°W
75°W
70°W
65°W
60°W
55°W
50°W
45°W
40°W
55°N
50°N
45°N
40°N
35°N
1912
Storms of Tropical Origin
in the Canadian Hurricane Centre
Response Zone - - - - -
(storms were not named before 1950)
Meteorological Service of Canada - Atlantic
Service Météorologique du Canada - Atlantique
#6
Nov 23, 1912
18 UTC
65 kts



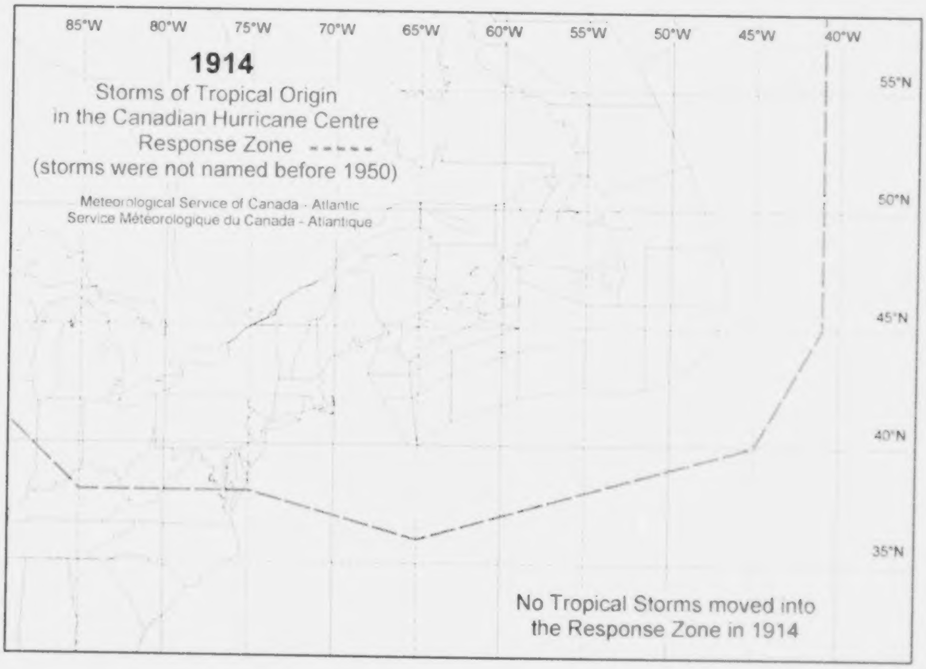
1913

Storms of Tropical Origin
in the Canadian Hurricane Centre
Response Zone - - - - -
(storms were not named before 1950)

Meteorological Service of Canada - Atlantic
Service Météorologique du Canada - Atlantique

No Tropical Storms moved into
the Response Zone in 1913

85°W
80°W
75°W
70°W
65°W
60°W
55°W
50°W
45°W
40°W
55°N
50°N
45°N
40°N
35°N



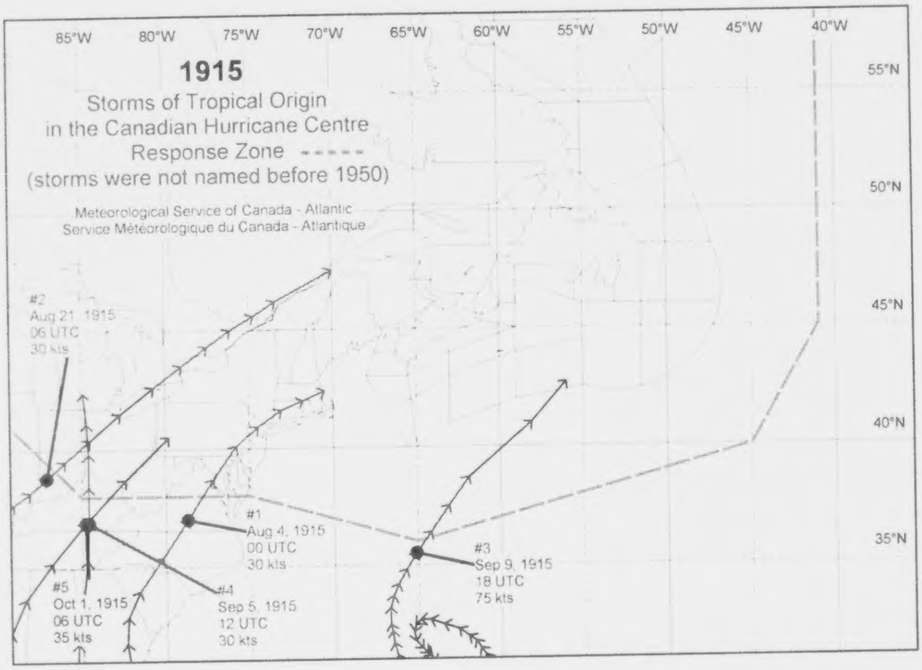
1914

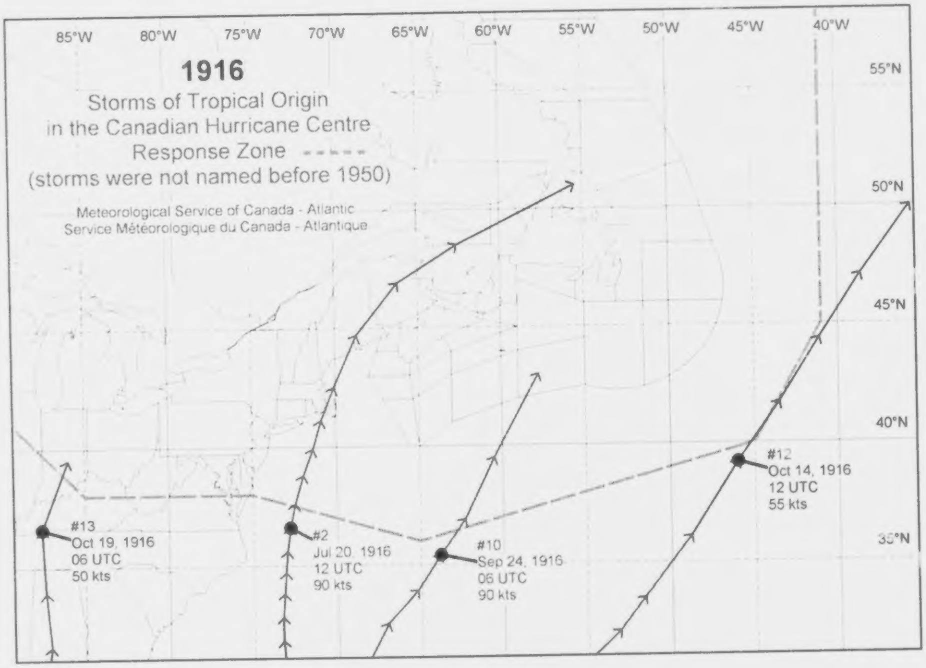
Storms of Tropical Origin
in the Canadian Hurricane Centre
Response Zone - - - - -
(storms were not named before 1950)

Meteorological Service of Canada - Atlantic
Service Météorologique du Canada - Atlantique

No Tropical Storms moved into
the Response Zone in 1914

85°W
80°W
75°W
70°W
65°W
60°W
55°W
50°W
45°W
40°W
55°N
50°N
45°N
40°N
35°N


85°W
80°W
75°W
70°W
65°W
60°W
55°W
50°W
45°W
40°W
55°N
50°N
45°N
40°N
35°N
1915
Storms of Tropical Origin in the Canadian Hurricane Centre Response Zone
(storms were not named before 1950)
Meteorological Service of Canada - Atlantic
Service Météorologique du Canada - Atlantique
#2
Aug 21, 1915
06 UTC
30 kts
#1
Aug 4, 1915
00 UTC
30 kts
#3
Sep 9, 1915
18 UTC
75 kts
#5
Oct 1, 1915
06 UTC
35 kts
#4
Sep 5, 1915
12 UTC
30 kts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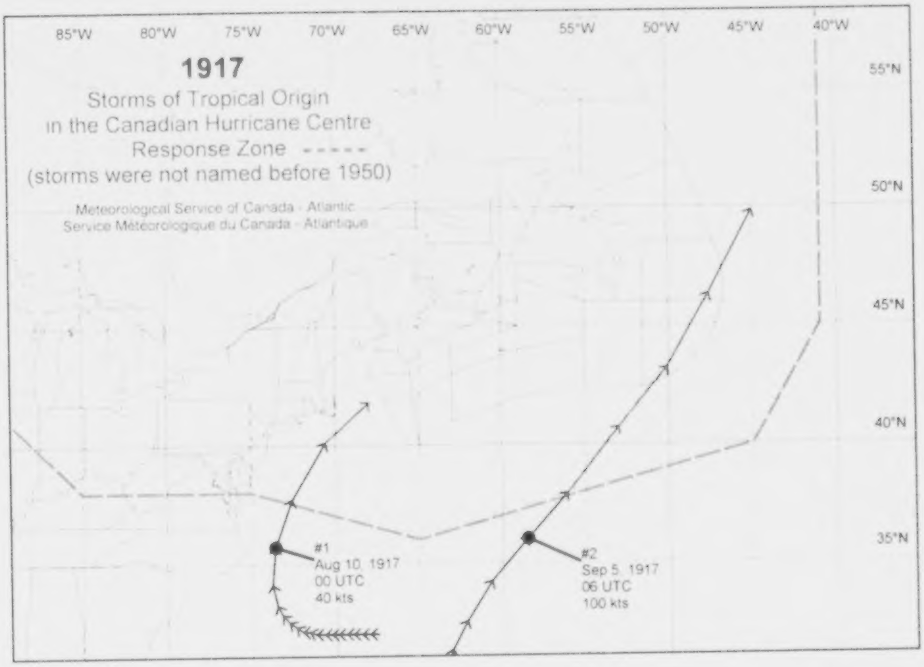
80°W
75°W
70°W
65°W
60°W
55°W
50°W
45°W
40°W
55°N
50°N
45°N
40°N
35°N
1916
Storms of Tropical Origin in the Canadian Hurricane Centre Response Zone
(storms were not named before 1950)
Meteorological Service of Canada - Atlantic
Service Météorologique du Canada - Atlantique
#13
Oct 19, 1916
06 UTC
50 kts
#2
Jul 20, 1916
12 UTC
90 kts
#10
Sep 24, 1916
06 UTC
90 kts
#12
Oct 14, 1916
12 UTC
55 kts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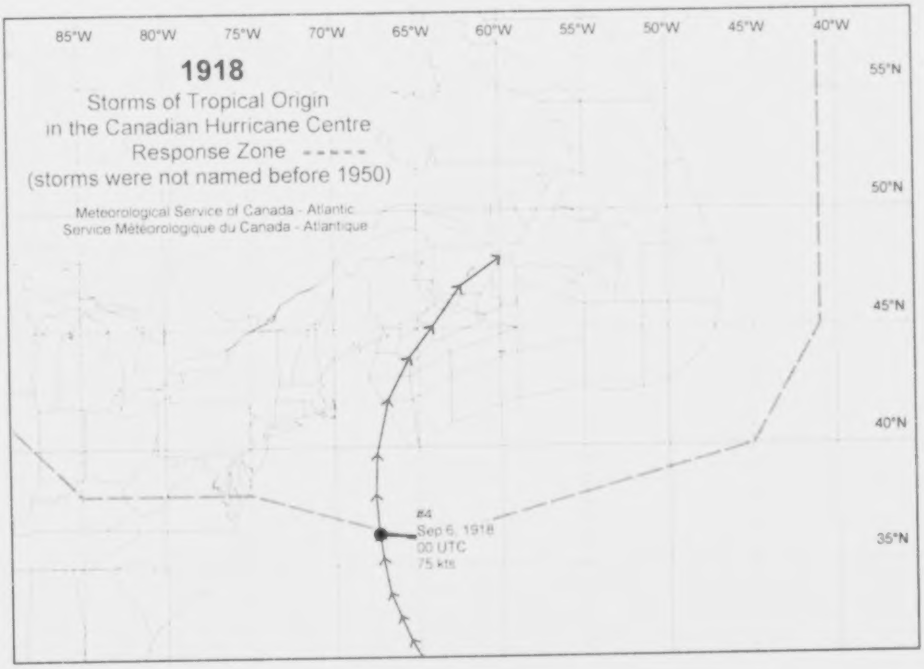
75°W
70°W
65°W
60°W
55°W
50°W
45°W
40°W
55°N
50°N
45°N
40°N
35°N
1917
Storms of Tropical Origin
in the Canadian Hurricane Centre
Response Zone -----
(storms were not named before 1950)
Meteorological Service of Canada - Atlantic
Service Météorologique du Canada - Atlantique
#1
Aug 10, 1917
00 UTC
40 kts
#2
Sep 5, 1917
06 UTC
100 kts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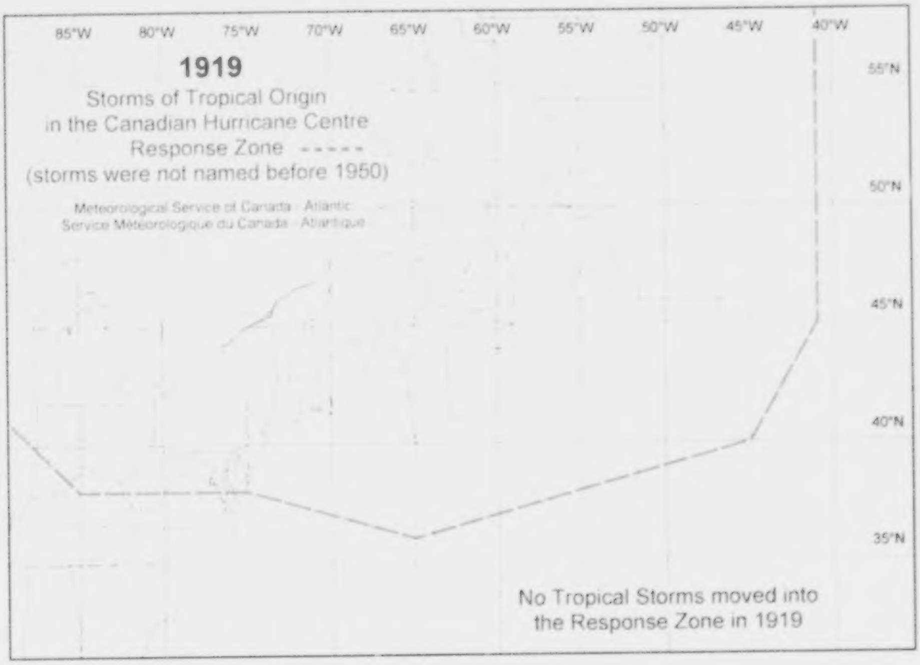
80°W
75°W
70°W
65°W
60°W
55°W
50°W
45°W
40°W
55°N
50°N
45°N
40°N
35°N
1918
Storms of Tropical Origin
in the Canadian Hurricane Centre
Response Zone -----
(storms were not named before 1950)
Meteorological Service of Canada - Atlantic
Service Météorologique du Canada - Atlantique
#4
Sep 6, 1918
00 UTC
75 kts

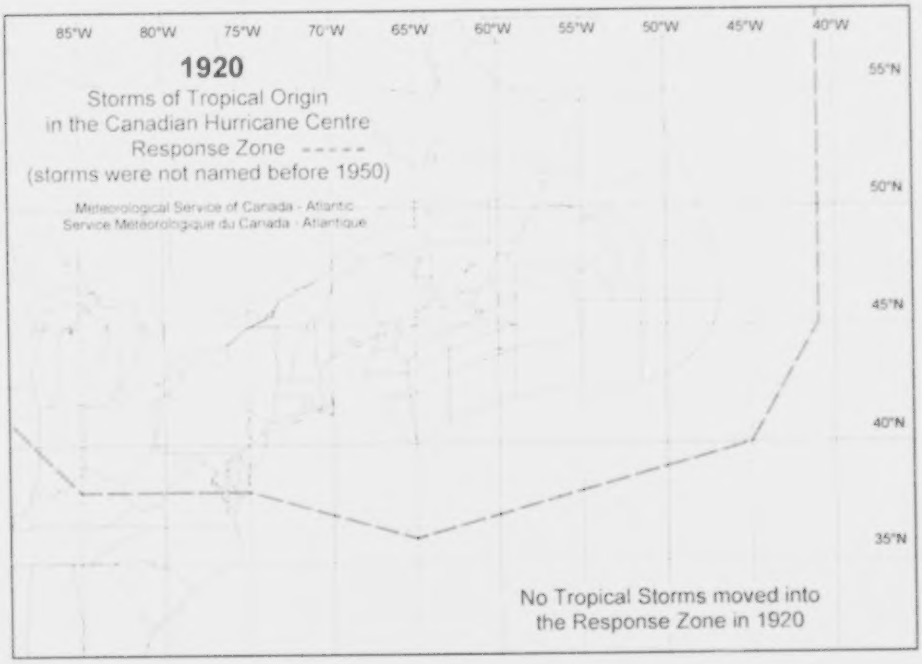

85°W
80°W
75°W
70°W
65°W
60°W
55°W
50°W
45°W
40°W
55°N
50°N
45°N
40°N
35°N

1919
Storms of Tropical Origin
in the Canadian Hurricane Centre
Response Zone -----
(storms were not named before 1950)

Meteorological Service of Canada - Atlantic
Service Météorologique du Canada - Atlantique

No Tropical Storms moved into the Response Zone in 1919

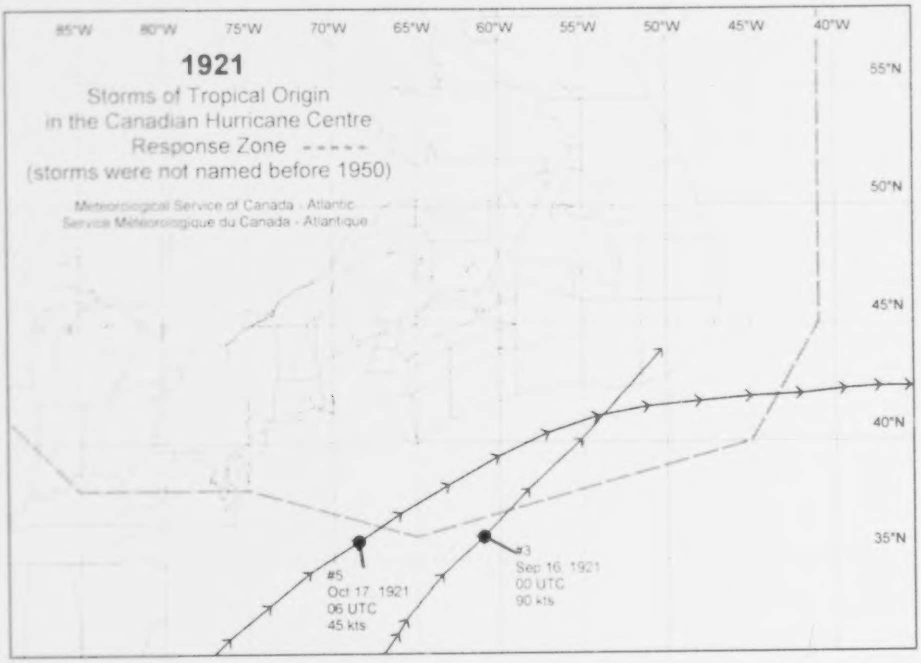
1920's

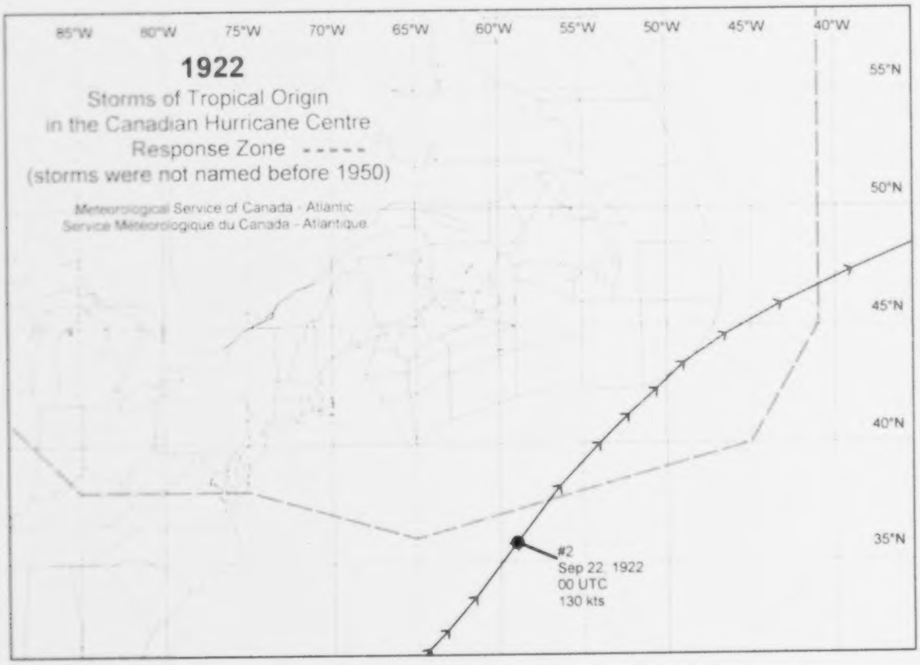

85°W
80°W
75°W
70°W
65°W
60°W
55°W
50°W
45°W
40°W
55°N
50°N
45°N
40°N
35°N

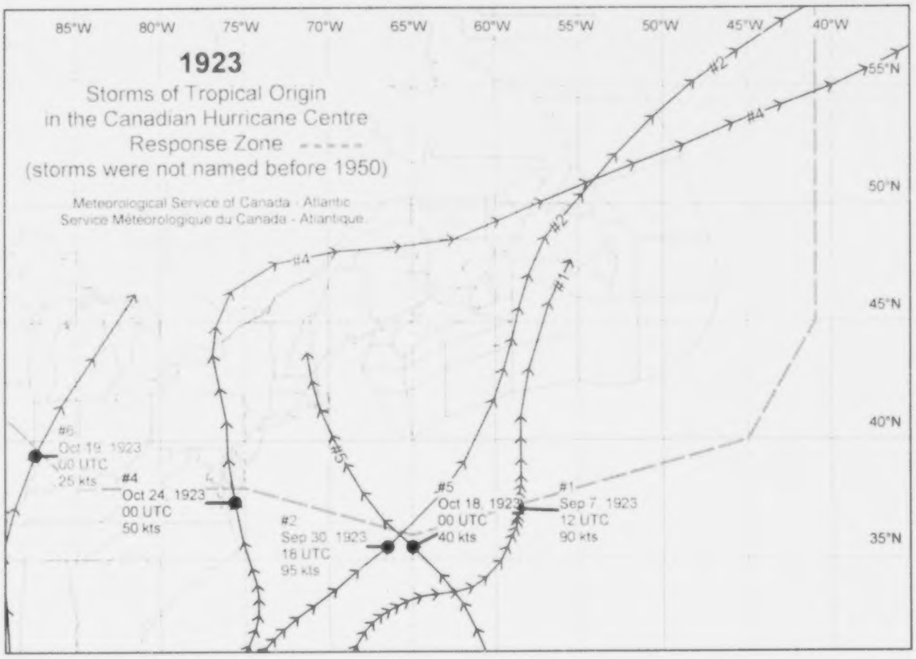
1920
Storms of Tropical Origin
in the Canadian Hurricane Centre
Response Zone -----
(storms were not named before 1950)

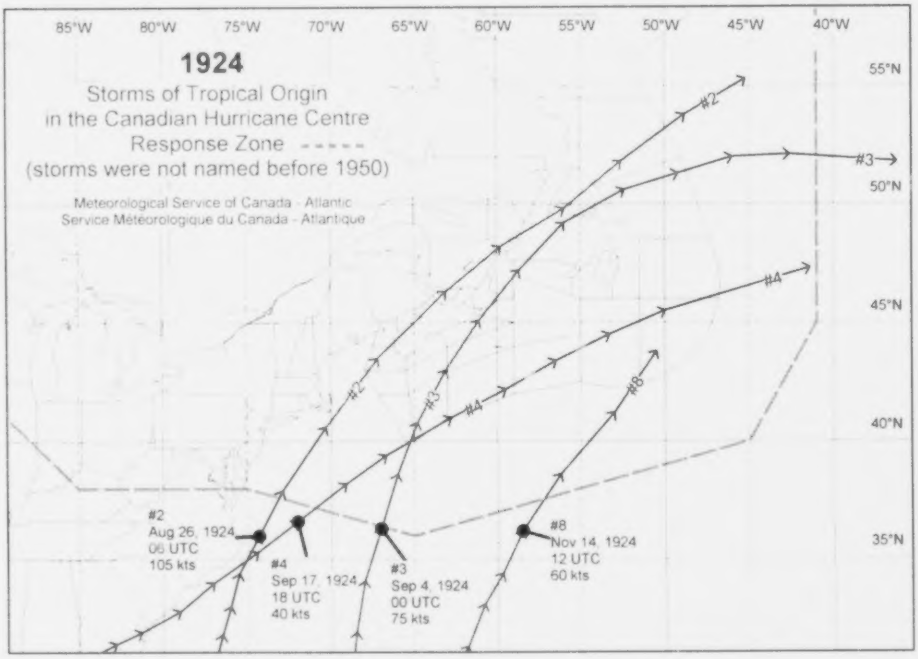
Meteorological Service of Canada - Atlantic
Service Météorologique du Canada - Atlantique

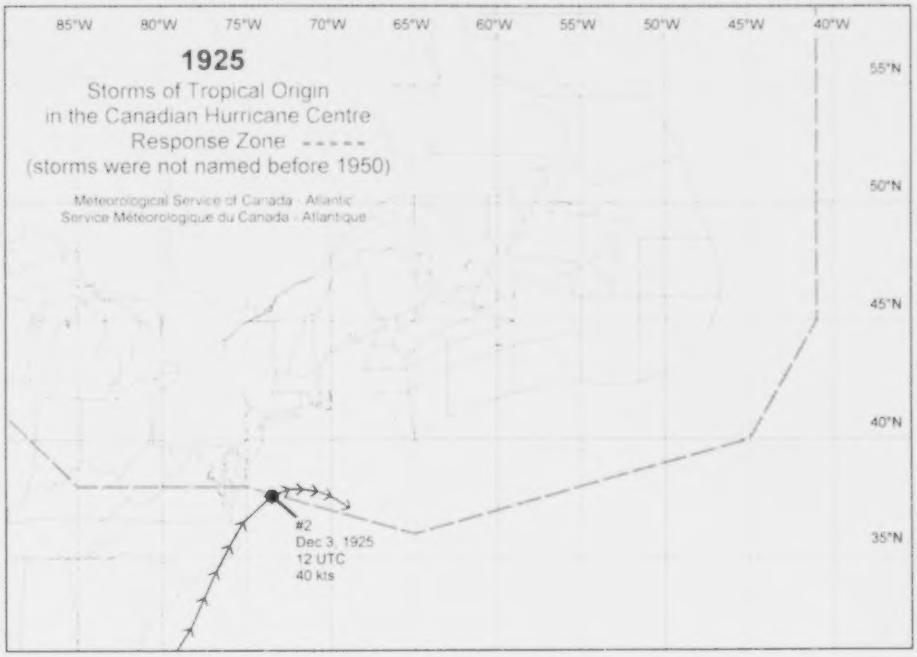
No Tropical Storms moved into the Response Zone in 1920


85°W
80°W
75°W
70°W
65°W
60°W
55°W
50°W
45°W
40°W
55°N
50°N
45°N
40°N
35°N
1921
Storms of Tropical Origin
in the Canadian Hurricane Centre
Response Zone - - - - -
(storms were not named before 1950)
Meteorological Service of Canada - Atlantic
Service Météorologique du Canada - Atlantique
#5
Oct 17 1921
06 UTC
45 kts
#3
Sep 16 1921
00 UTC
90 kts


85°W
80°W
75°W
70°W
65°W
60°W
55°W
50°W
45°W
40°W
55°N
50°N
45°N
40°N
35°N
1922
Storms of Tropical Origin
in the Canadian Hurricane Centre
Response Zone - - - - -
(storms were not named before 1950)
Meteorological Service of Canada - Atlantic
Service Météorologique du Canada - Atlantique
#2
Sep 22 1922
00 UTC
130 kts


85°W
80°W
75°W
70°W
65°W
60°W
55°W
50°W
45°W
40°W
55°N
50°N
45°N
40°N
35°N
1923
Storms of Tropical Origin
in the Canadian Hurricane Centre
Response Zone
(storms were not named before 1950)
Meteorological Service of Canada - Atlantic
Service Météorologique du Canada - Atlantique
#2
#4
#1
#5
#6
Oct 19, 1923
00 UTC
25 kts
#4
Oct 24, 1923
00 UTC
50 kts
#2
Sep 30, 1923
18 UTC
95 kts
#5
Oct 18, 1923
00 UTC
40 kts
#1
Sep 7, 1923
12 UTC
90 kts


85°W
80°W
75°W
70°W
65°W
60°W
55°W
50°W
45°W
40°W
55°N
50°N
45°N
40°N
35°N
1924
Storms of Tropical Origin
in the Canadian Hurricane Centre
Response Zone
(storms were not named before 1950)
Meteorological Service of Canada - Atlantic
Service Météorologique du Canada - Atlantique
#2
#3
#4
#8
#2
Aug 26, 1924
06 UTC
105 kts
#4
Sep 17, 1924
18 UTC
40 kts
#3
Sep 4, 1924
00 UTC
75 kts
#8
Nov 14, 1924
12 UTC
60 kts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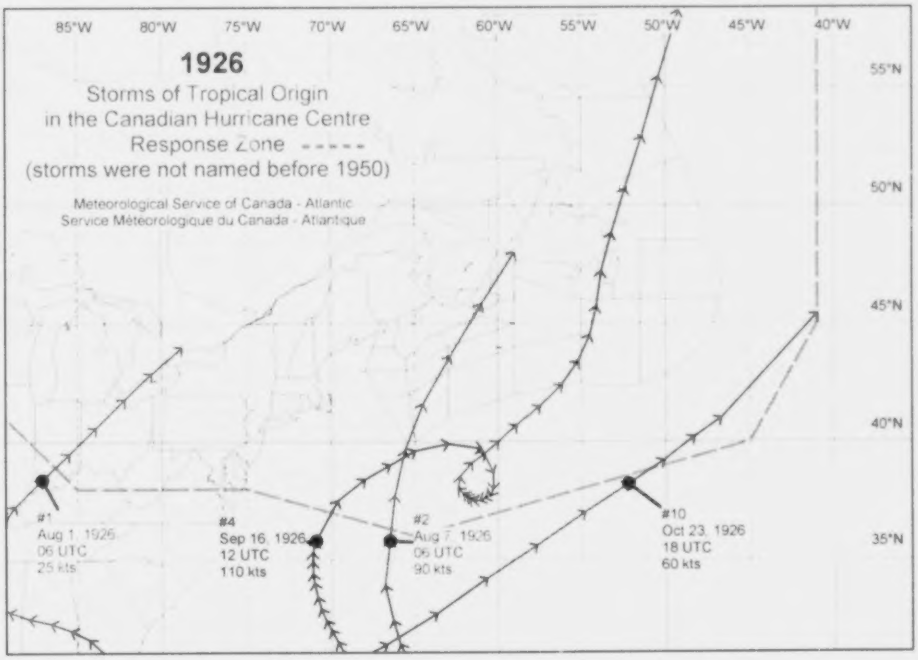
80°W
75°W
70°W
65°W
60°W
55°W
50°W
45°W
40°W
55°N
50°N
45°N
40°N
35°N
1925
Storms of Tropical Origin
in the Canadian Hurricane Centre
Response Zone -----
(storms were not named before 1950)
Meteorological Service of Canada - Atlantic
Service Météorologique du Canada - Atlantique
#2
Dec 3, 1925
12 UTC
40 kts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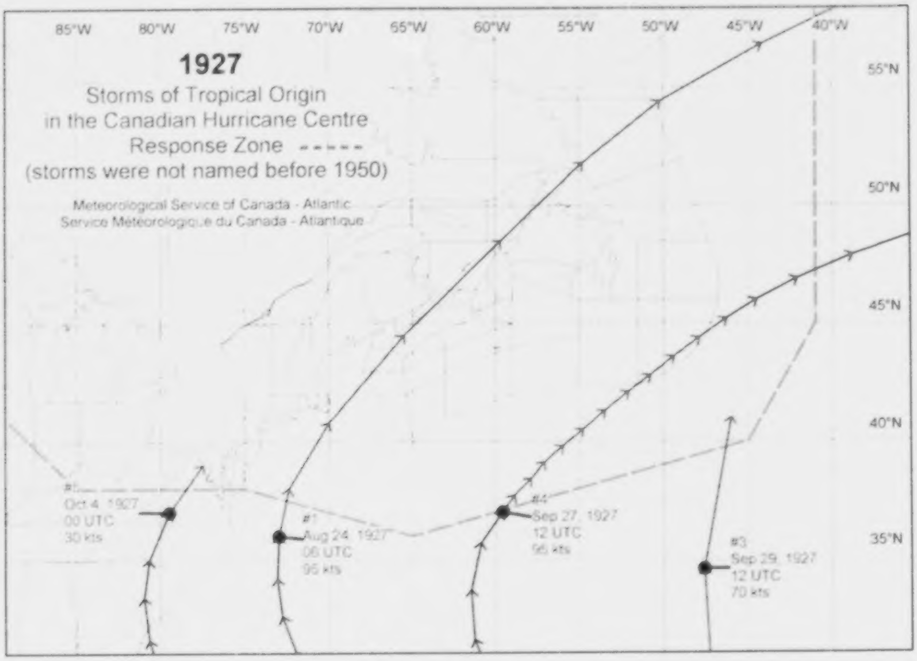
75°W
70°W
65°W
60°W
55°W
50°W
45°W
40°W
55°N
50°N
45°N
40°N
35°N
1926
Storms of Tropical Origin
in the Canadian Hurricane Centre
Response Zone -----
(storms were not named before 1950)
Meteorological Service of Canada - Atlantic
Service Météorologique du Canada - Atlantique
#1
Aug 1, 1926
06 UTC
25 kts
#4
Sep 16, 1926
12 UTC
110 kts
#2
Aug 7, 1926
06 UTC
90 kts
#10
Oct 23, 1926
18 UTC
60 kts

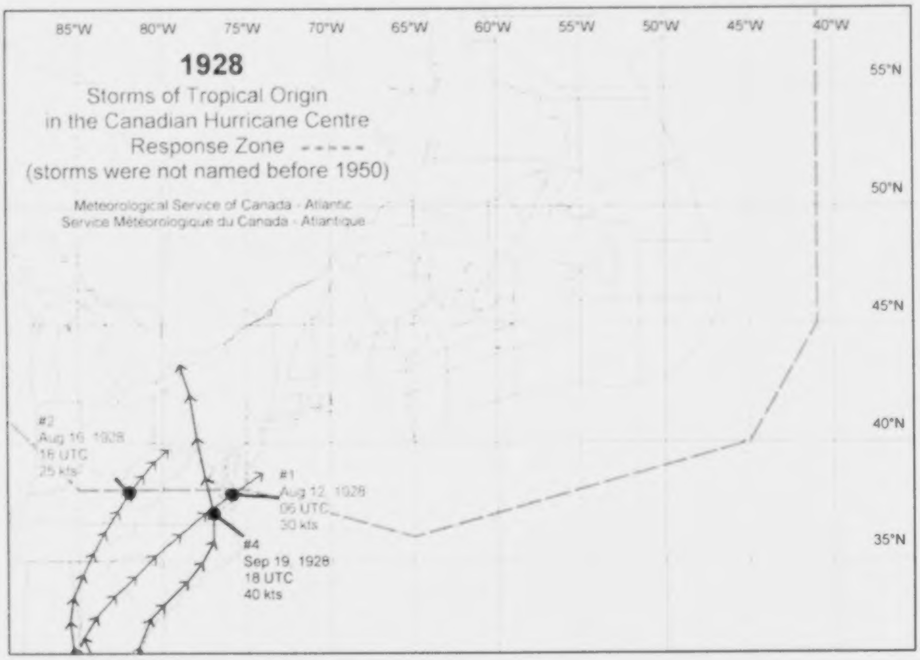


1927

Storms of Tropical Origin
in the Canadian Hurricane Centre
Response Zone - - - - -
(storms were not named before 1950)

Meteorological Service of Canada - Atlantic
Service Météorologique du Canada - Atlantique

85°W
80°W
75°W
70°W
65°W
60°W
55°W
50°W
45°W
40°W
55°N
50°N
45°N
40°N
35°N
#5
Oct 4, 1927
00 UTC
30 kts
#1
Aug 24, 1927
06 UTC
95 kts
#4
Sep 27, 1927
12 UTC
95 kts
#3
Sep 29, 1927
12 UTC
70 kts

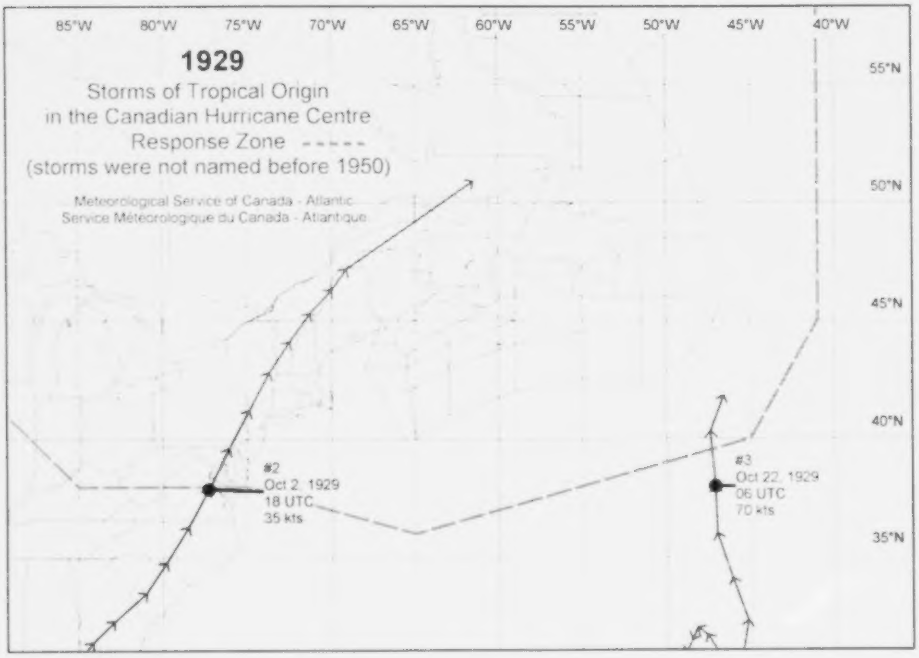


1928

Storms of Tropical Origin
in the Canadian Hurricane Centre
Response Zone - - - - -
(storms were not named before 1950)

Meteorological Service of Canada - Atlantic
Service Météorologique du Canada - Atlantique

85°W
80°W
75°W
70°W
65°W
60°W
55°W
50°W
45°W
40°W
55°N
50°N
45°N
40°N
35°N
#2
Aug 16, 1928
18 UTC
25 kts
#1
Aug 12, 1928
06 UTC
30 kts
#4
Sep 19, 1928
18 UTC
40 kts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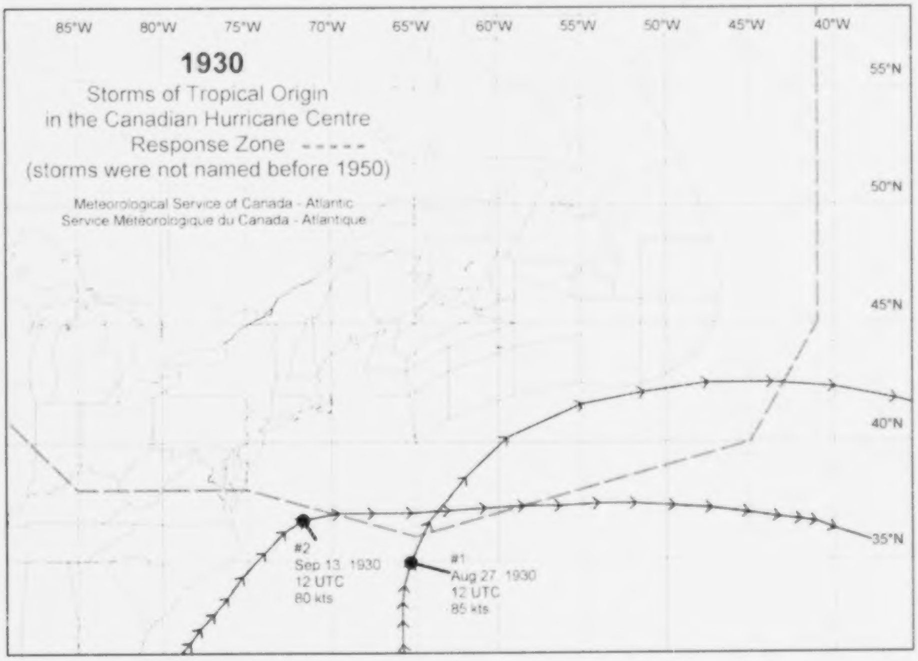
75°W
70°W
65°W
60°W
55°W
50°W
45°W
40°W
55°N
50°N
45°N
40°N
35°N
1929
Storms of Tropical Origin
in the Canadian Hurricane Centre
Response Zone -----
(storms were not named before 1950)
Meteorological Service of Canada - Atlantic
Service Météorologique du Canada - Atlantique
#2
Oct 2, 1929
18 UTC
35 kts
#3
Oct 22, 1929
06 UTC
70 kts

1930's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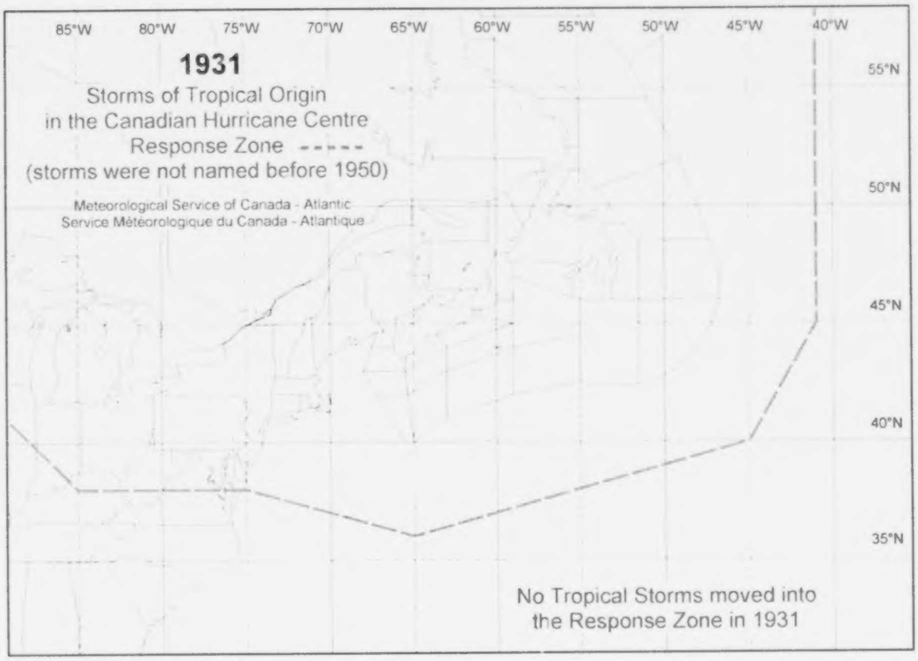
75°W
70°W
65°W
60°W
55°W
50°W
45°W
40°W
55°N
50°N
45°N
40°N
35°N
1930
Storms of Tropical Origin
in the Canadian Hurricane Centre
Response Zone -----
(storms were not named before 1950)
Meteorological Service of Canada - Atlantic
Service Météorologique du Canada - Atlantique
#2
Sep 13, 1930
12 UTC
80 kts
#1
Aug 27, 1930
12 UTC
85 kts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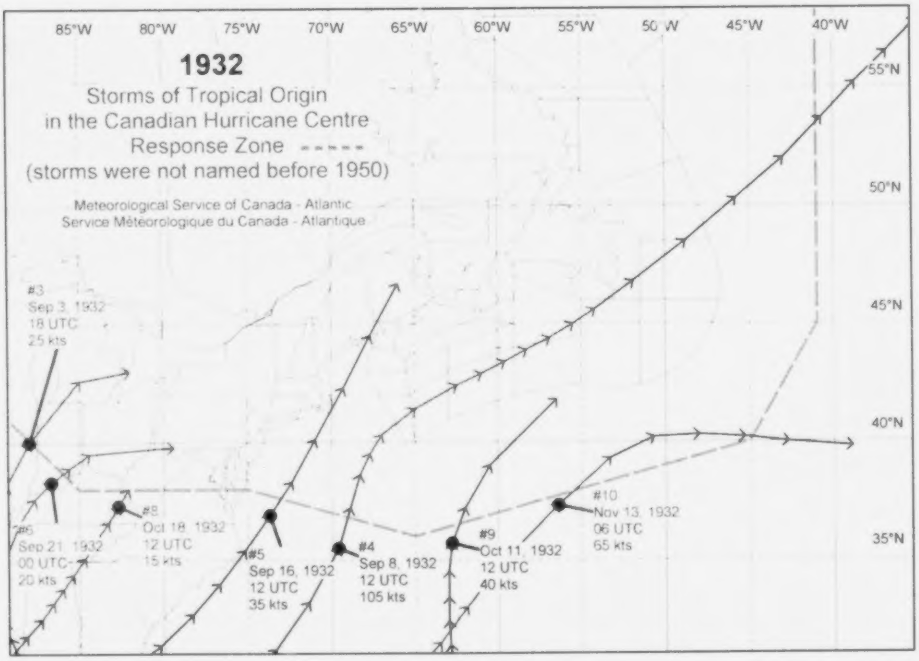
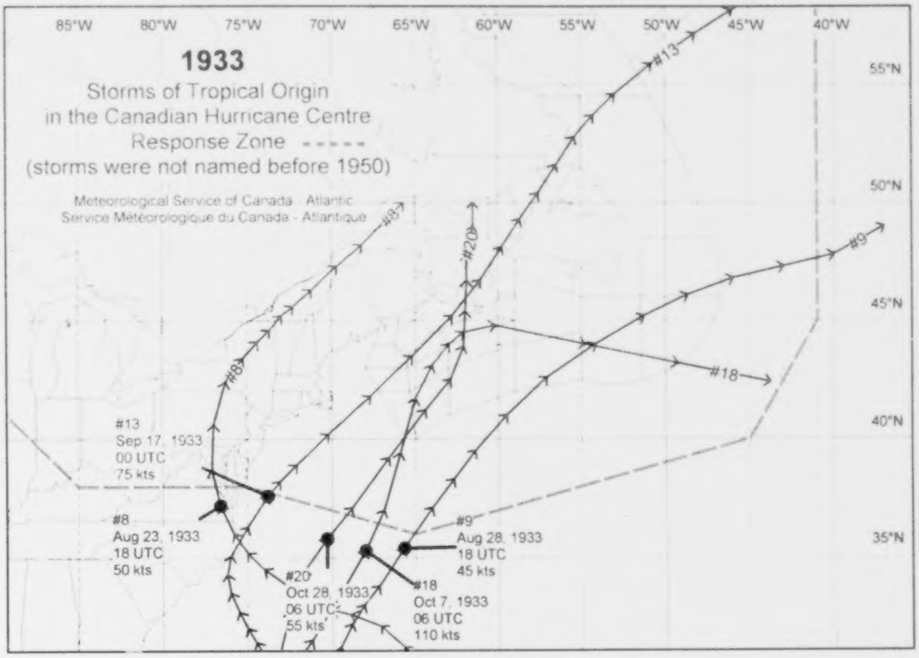
80°W
75°W
70°W
65°W
60°W
55°W
50°W
45°W
40°W
55°N
50°N
45°N
40°N
35°N
1931
Storms of Tropical Origin
in the Canadian Hurricane Centre
Response Zone - - - - -
(storms were not named before 1950)
Meteorological Service of Canada - Atlantic
Service Météorologique du Canada - Atlantique
No Tropical Storms moved into
the Response Zone in 1931


85°W
80°W
75°W
70°W
65°W
60°W
55°W
50°W
45°W
40°W
55°N
50°N
45°N
40°N
35°N
1932
Storms of Tropical Origin
in the Canadian Hurricane Centre
Response Zone - - - - -
(storms were not named before 1950)
Meteorological Service of Canada - Atlantic
Service Météorologique du Canada - Atlantique
#3
Sep 3, 1932
18 UTC
25 kts
#6
Sep 21, 1932
00 UTC
20 kts
#8
Oct 18, 1932
12 UTC
15 kts
#5
Sep 16, 1932
12 UTC
35 kts
#4
Sep 8, 1932
12 UTC
105 kts
#9
Oct 11, 1932
12 UTC
40 kts
#10
Nov 13, 1932
06 UTC
65 kts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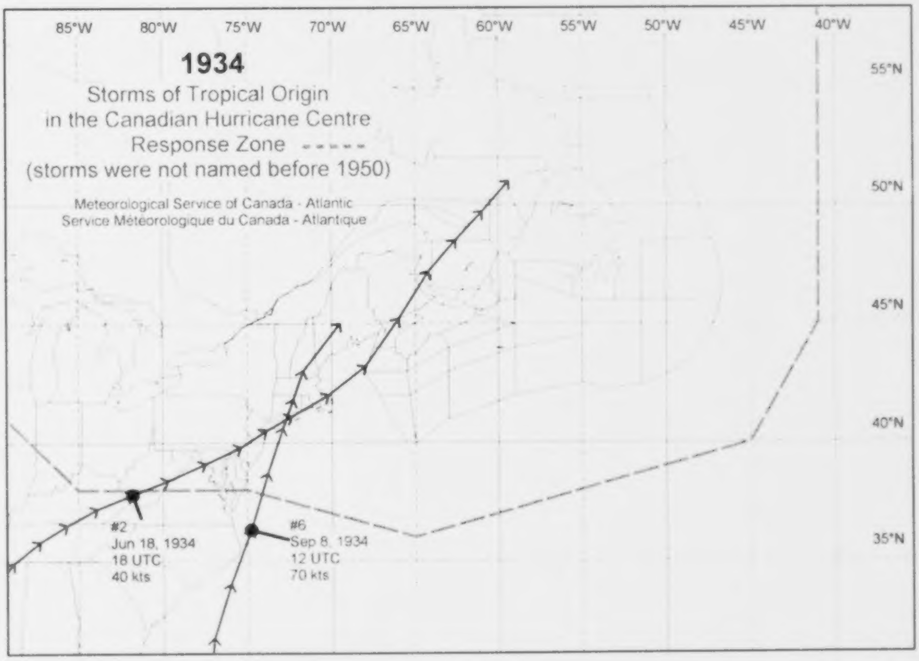
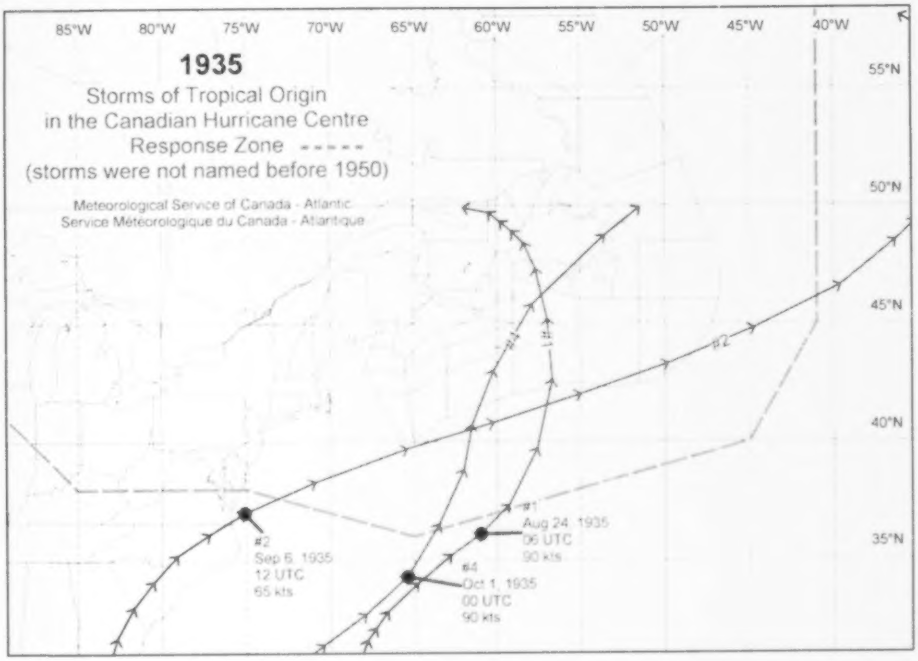
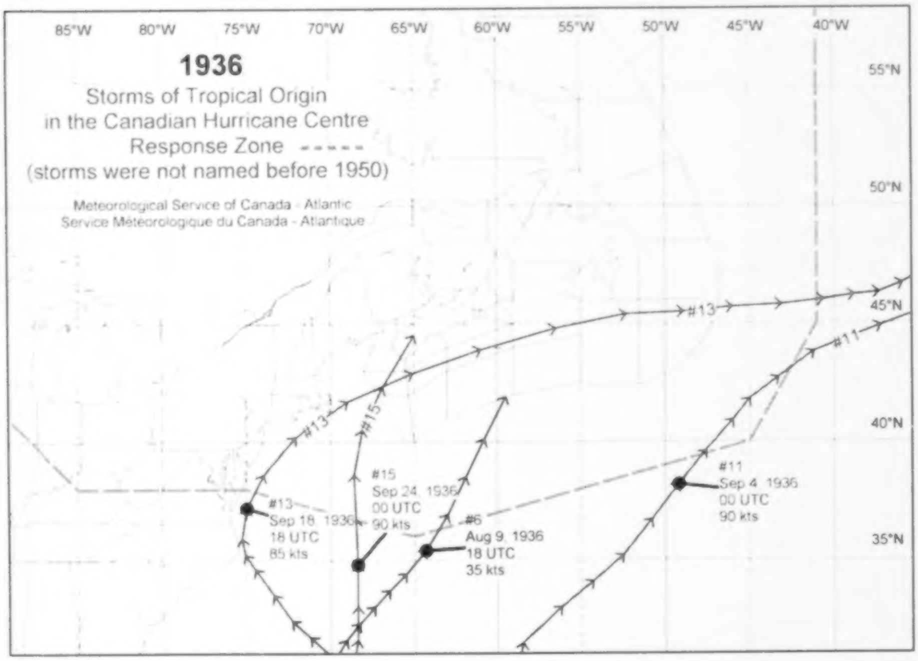
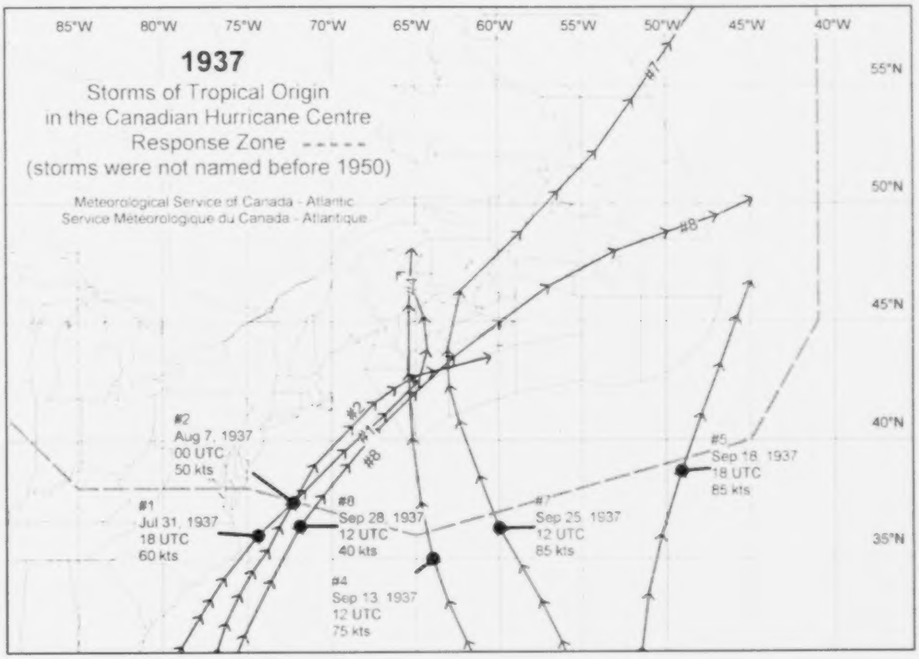
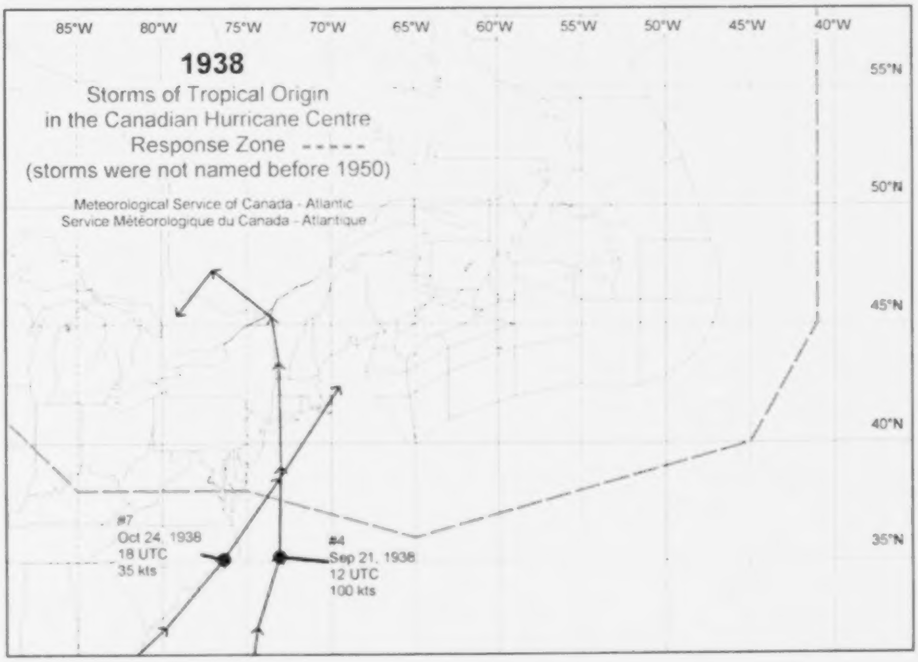
80°W
75°W
70°W
65°W
60°W
55°W
50°W
45°W
40°W
55°N
50°N
45°N
40°N
35°N
1933
Storms of Tropical Origin
in the Canadian Hurricane Centre
Response Zone - - - - -
(storms were not named before 1950)
Meteorological Service of Canada - Atlantic
Service Météorologique du Canada - Atlantique
#13
#8
#20
#9
#18
#13
Sep 17, 1933
00 UTC
75 kts
#8
Aug 23, 1933
18 UTC
50 kts
#20
Oct 28, 1933
06 UTC
55 kts
#18
Oct 7, 1933
06 UTC
110 kts
#9
Aug 28, 1933
18 UTC
45 kts

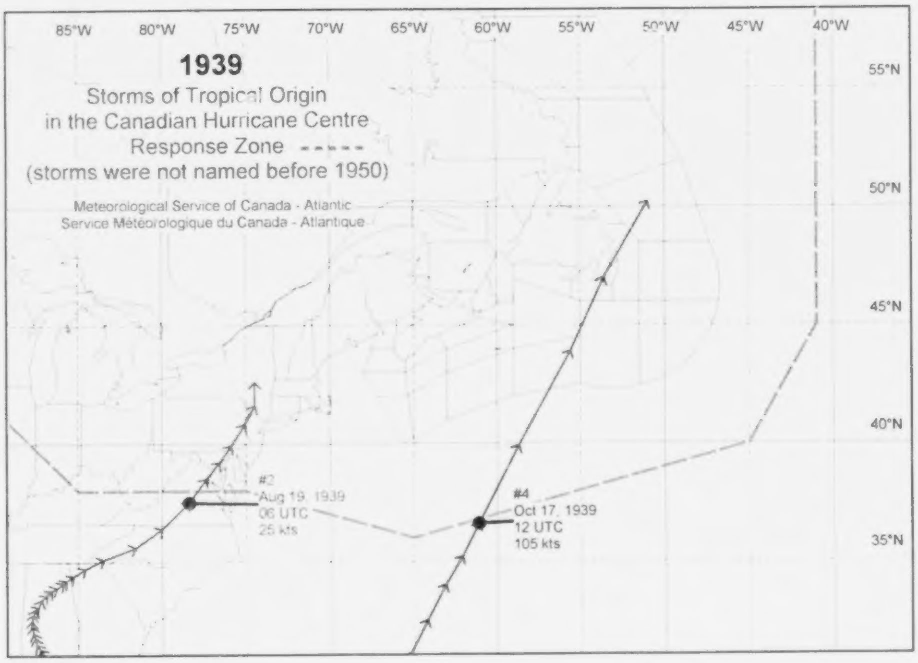

85°W
80°W
75°W
70°W
65°W
60°W
55°W
50°W
45°W
40°W
55°N
50°N
45°N
40°N
35°N
1934
Storms of Tropical Origin
in the Canadian Hurricane Centre
Response Zone - - - - -
(storms were not named before 1950)
Meteorological Service of Canada - Atlantic
Service Météorologique du Canada - Atlantique
#2
Jun 18, 1934
18 UTC
40 kts
#6
Sep 8, 1934
12 UTC
70 kts


85°W
80°W
75°W
70°W
65°W
60°W
55°W
50°W
45°W
40°W
55°N
50°N
45°N
40°N
35°N
1935
Storms of Tropical Origin in the Canadian Hurricane Centre Response Zone -----
(storms were not named before 1950)
Meteorological Service of Canada - Atlantic
Service Météorologique du Canada - Atlantique
#1
#2
#4
#1
Aug 24, 1935
06 UTC
90 kts
#2
Sep 6, 1935
12 UTC
65 kts
#4
Oct 1, 1935
00 UTC
90 kts


85°W
80°W
75°W
70°W
65°W
60°W
55°W
50°W
45°W
40°W
55°N
50°N
45°N
40°N
35°N
1936
Storms of Tropical Origin in the Canadian Hurricane Centre Response Zone -----
(storms were not named before 1950)
Meteorological Service of Canada - Atlantic
Service Météorologique du Canada - Atlantique
#13
#11
#13
#15
#15
Sep 24, 1936
00 UTC
90 kts
#13
Sep 18, 1936
18 UTC
85 kts
#6
Aug 9, 1936
18 UTC
35 kts
#11
Sep 4, 1936
00 UTC
90 kts


1937
Storms of Tropical Origin
in the Canadian Hurricane Centre
Response Zone -----
(storms were not named before 1950)
Meteorological Service of Canada - Atlantic
Service Météorologique du Canada - Atlantique
85°W
80°W
75°W
70°W
65°W
60°W
55°W
50°W
45°W
40°W
55°N
50°N
45°N
40°N
35°N
#7
#8
#2
#1
#8
#2 Aug 7, 1937 00 UTC 50 kts
#1 Jul 31, 1937 18 UTC 60 kts
#8 Sep 28, 1937 12 UTC 40 kts
#4 Sep 13, 1937 12 UTC 75 kts
#7 Sep 25, 1937 12 UTC 85 kts
#5 Sep 18, 1937 18 UTC 85 kts


1938
Storms of Tropical Origin
in the Canadian Hurricane Centre
Response Zone -----
(storms were not named before 1950)
Meteorological Service of Canada - Atlantic
Service Météorologique du Canada - Atlantique
85°W
80°W
75°W
70°W
65°W
60°W
55°W
50°W
45°W
40°W
55°N
50°N
45°N
40°N
35°N
#7 Oct 24, 1938 18 UTC 35 kts
#4 Sep 21, 1938 12 UTC 100 kts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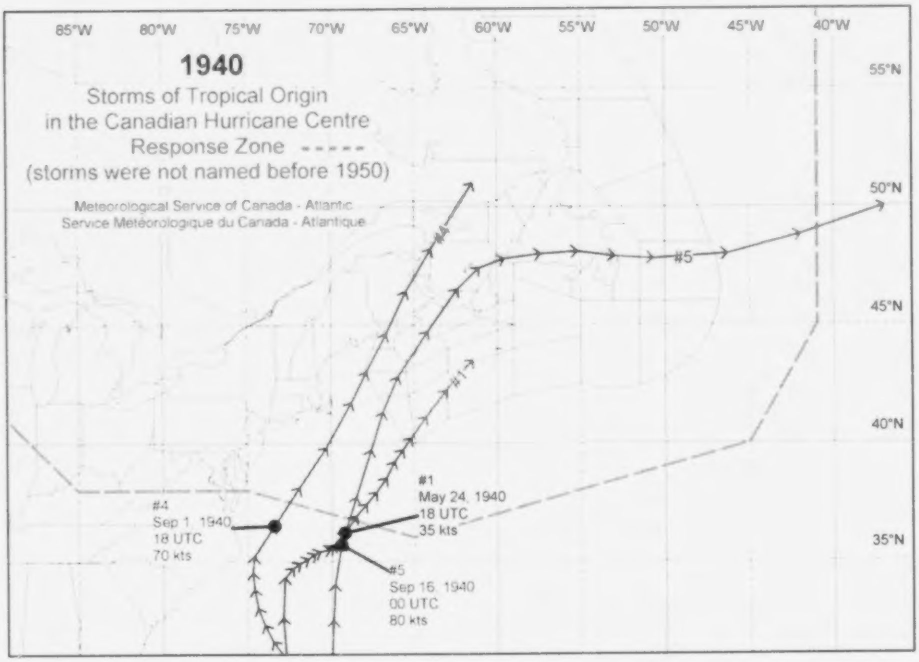
75°W
70°W
65°W
60°W
55°W
50°W
45°W
40°W
55°N
50°N
45°N
40°N
35°N
1939
Storms of Tropical Origin
in the Canadian Hurricane Centre
Response Zone - - - - -
(storms were not named before 1950)
Meteorological Service of Canada - Atlantic
Service Météorologique du Canada - Atlantique
#2
Aug 19, 1939
06 UTC
25 kts
#4
Oct 17, 1939
12 UTC
105 kts

1940's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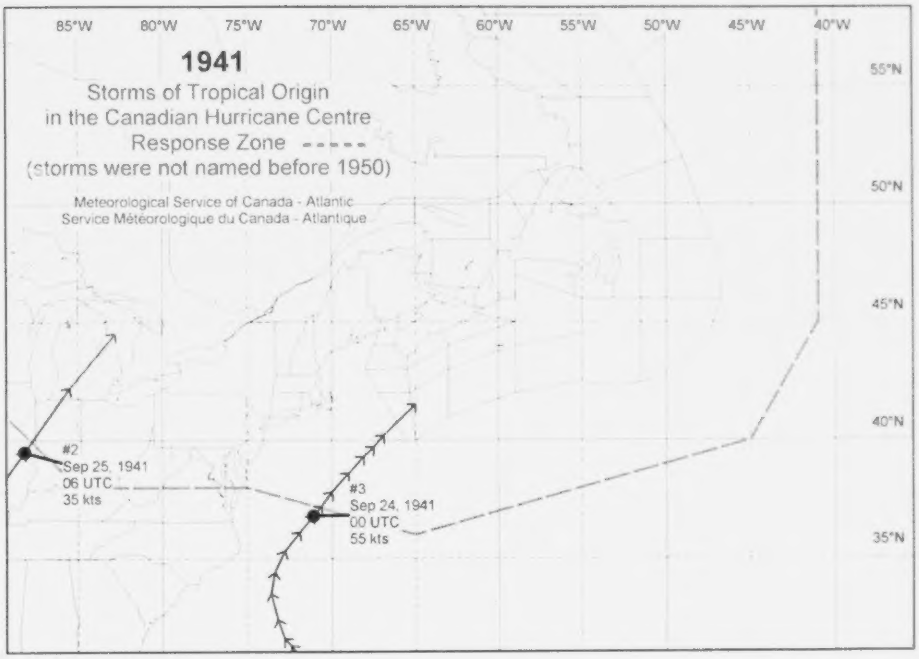
75°W
70°W
65°W
60°W
55°W
50°W
45°W
40°W
55°N
50°N
45°N
40°N
35°N
1940
Storms of Tropical Origin
in the Canadian Hurricane Centre
Response Zone - - - - -
(storms were not named before 1950)
Meteorological Service of Canada - Atlantic
Service Météorologique du Canada - Atlantique
#4
#5
#1
#1
May 24, 1940
18 UTC
35 kts
#4
Sep 1, 1940
18 UTC
70 kts
#5
Sep 16, 1940
00 UTC
80 kts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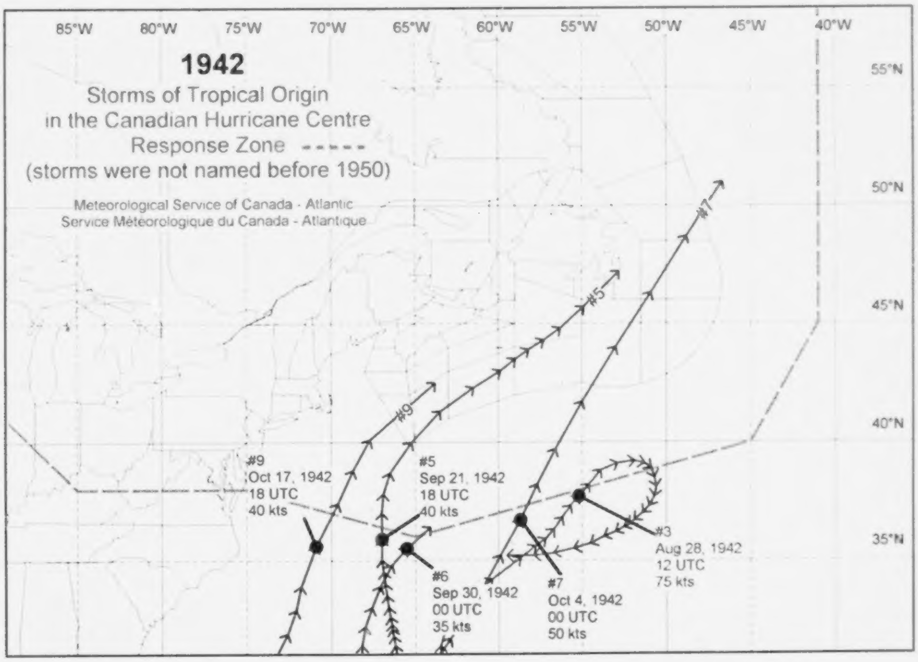
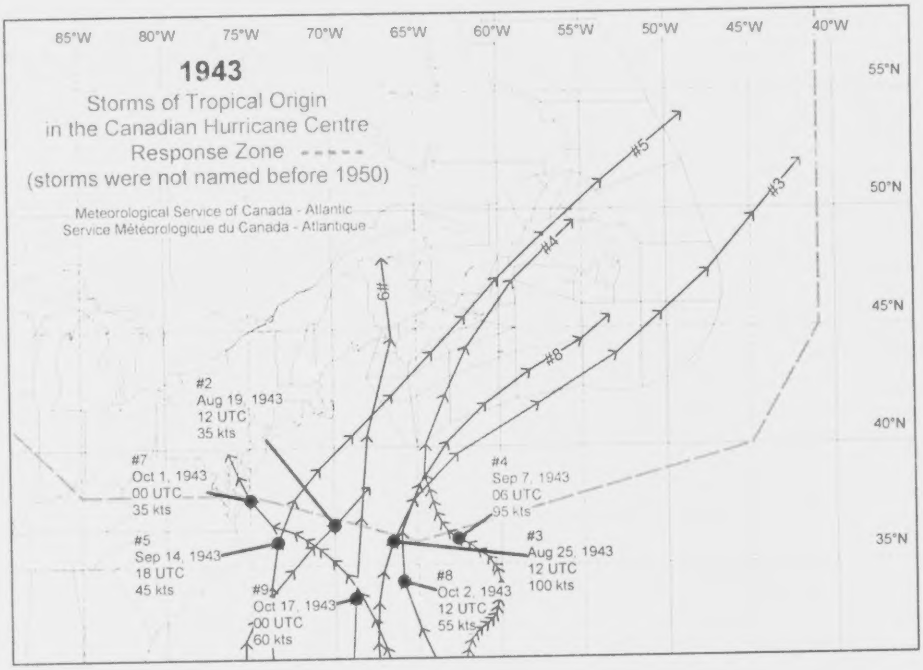
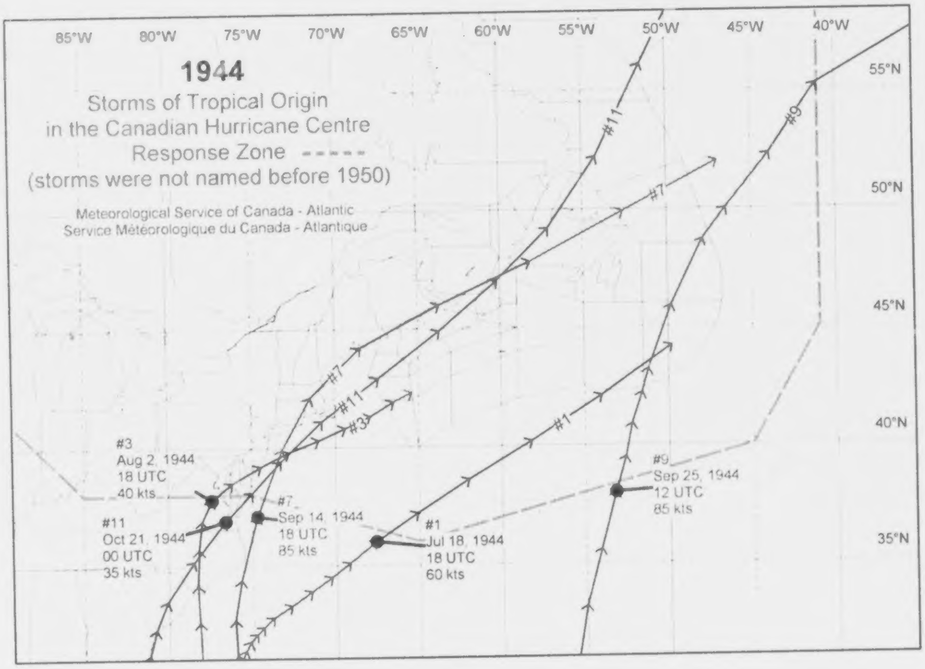
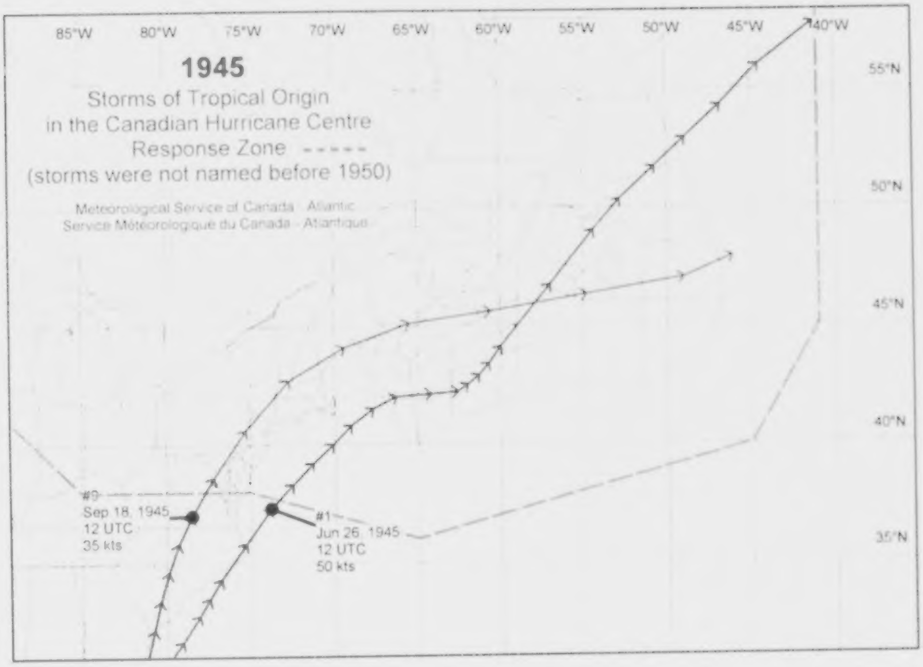
80°W
75°W
70°W
65°W
60°W
55°W
50°W
45°W
40°W
55°N
50°N
45°N
40°N
35°N
1941
Storms of Tropical Origin
in the Canadian Hurricane Centre
Response Zone -----
(storms were not named before 1950)
Meteorological Service of Canada - Atlantic
Service Météorologique du Canada - Atlantique
#2
Sep 25, 1941
06 UTC
35 kts
#3
Sep 24, 1941
00 UTC
55 kts


85°W
80°W
75°W
70°W
65°W
60°W
55°W
50°W
45°W
40°W
55°N
50°N
45°N
40°N
35°N
1942
Storms of Tropical Origin
in the Canadian Hurricane Centre
Response Zone -----
(storms were not named before 1950)
Meteorological Service of Canada - Atlantic
Service Météorologique du Canada - Atlantique
#7
#5
#9
#9
Oct 17, 1942
18 UTC
40 kts
#5
Sep 21, 1942
18 UTC
40 kts
#6
Sep 30, 1942
00 UTC
35 kts
#7
Oct 4, 1942
00 UTC
50 kts
#3
Aug 28, 1942
12 UTC
75 kts


85°W
80°W
75°W
70°W
65°W
60°W
55°W
50°W
45°W
40°W
55°N
50°N
45°N
40°N
35°N
1943
Storms of Tropical Origin
in the Canadian Hurricane Centre
Response Zone -----
(storms were not named before 1950)
Meteorological Service of Canada - Atlantic
Service Météorologique du Canada - Atlantique
#5
#3
#4
#9
#8
#2
Aug 19, 1943
12 UTC
35 kts
#7
Oct 1, 1943
00 UTC
35 kts
#4
Sep 7, 1943
06 UTC
95 kts
#5
Sep 14, 1943
18 UTC
45 kts
#3
Aug 25, 1943
12 UTC
100 kts
#8
Oct 2, 1943
12 UTC
55 kts
#9
Oct 17, 1943
00 UTC
60 kts


85°W
80°W
75°W
70°W
65°W
60°W
55°W
50°W
45°W
40°W
55°N
50°N
45°N
40°N
35°N
1944
Storms of Tropical Origin
in the Canadian Hurricane Centre
Response Zone -----
(storms were not named before 1950)
Meteorological Service of Canada - Atlantic
Service Météorologique du Canada - Atlantique
#11
#9
#7
#1
#3
#3
Aug 2, 1944
18 UTC
40 kts
#11
Oct 21, 1944
00 UTC
35 kts
#7
Sep 14, 1944
18 UTC
85 kts
#1
Jul 18, 1944
18 UTC
60 kts
#9
Sep 25, 1944
12 UTC
85 kts

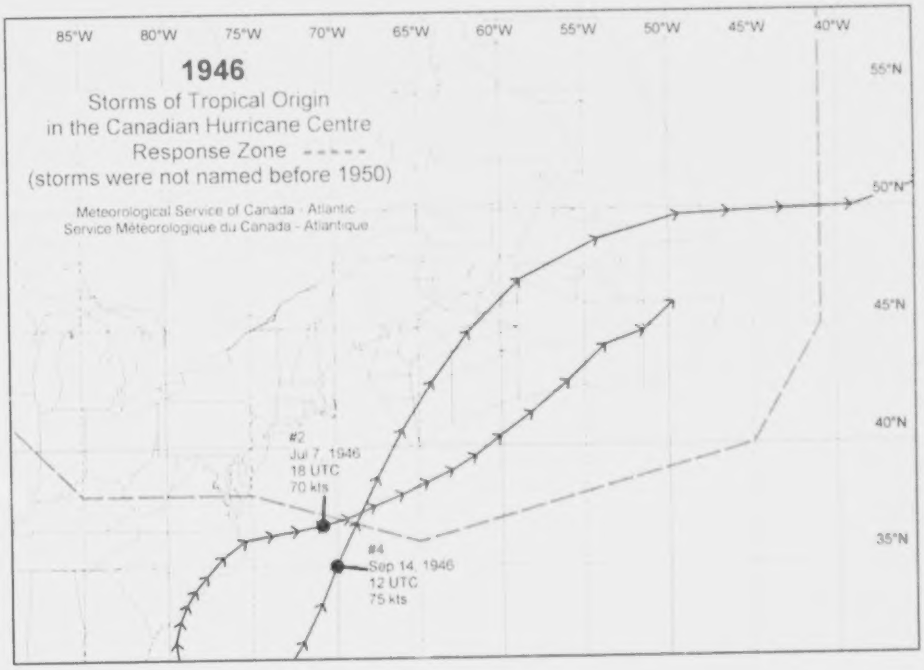


1945

Storms of Tropical Origin
in the Canadian Hurricane Centre
Response Zone - - - - -
(storms were not named before 1950)

Meteorological Service of Canada - Atlantic
Service Météorologique du Canada - Atlantique

85°W
80°W
75°W
70°W
65°W
60°W
55°W
50°W
45°W
40°W
55°N
50°N
45°N
40°N
35°N
#9
Sep 18, 1945
12 UTC
35 kts
#1
Jun 26, 1945
12 UTC
50 kts

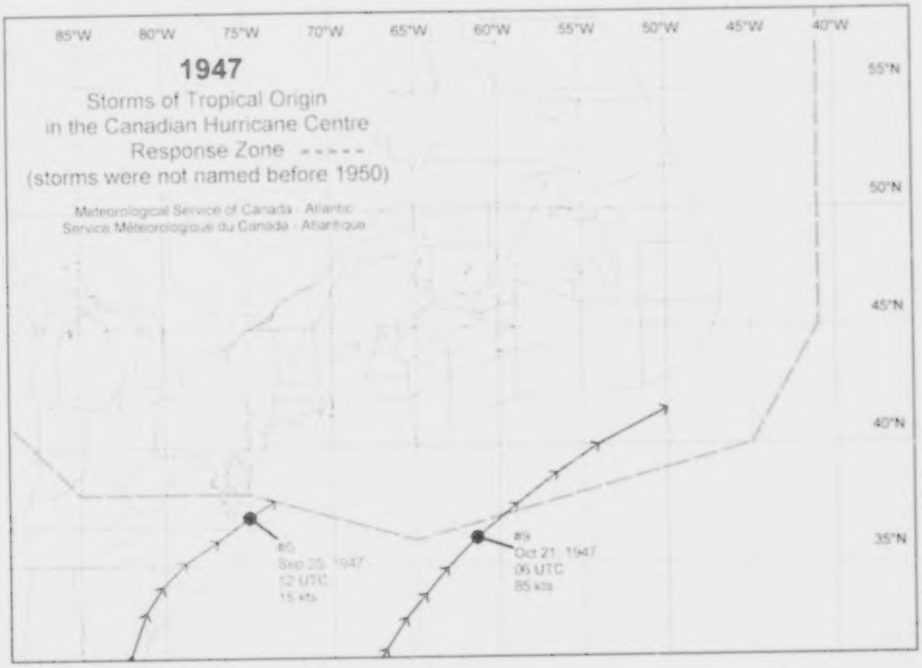


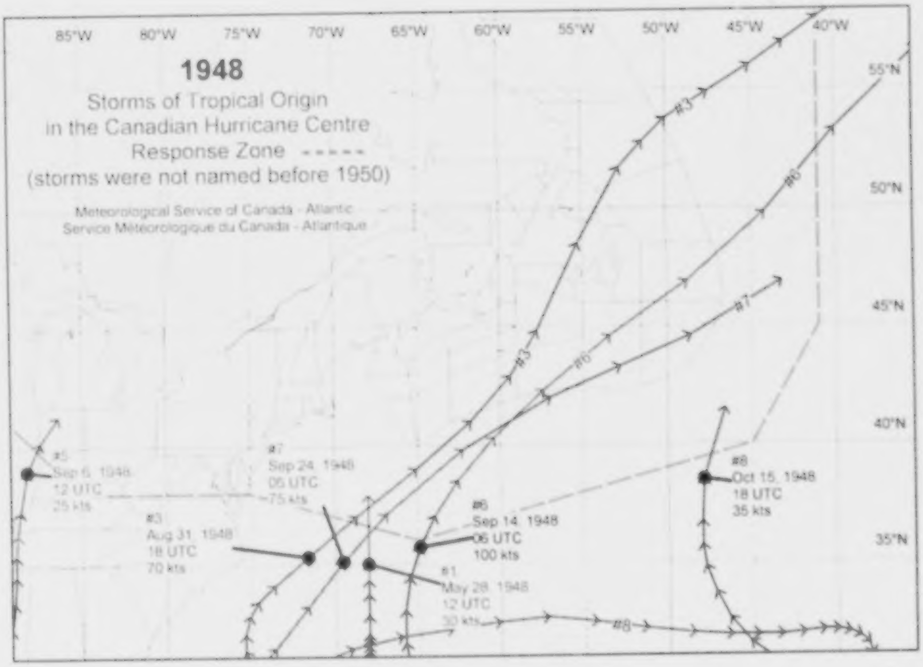
1946

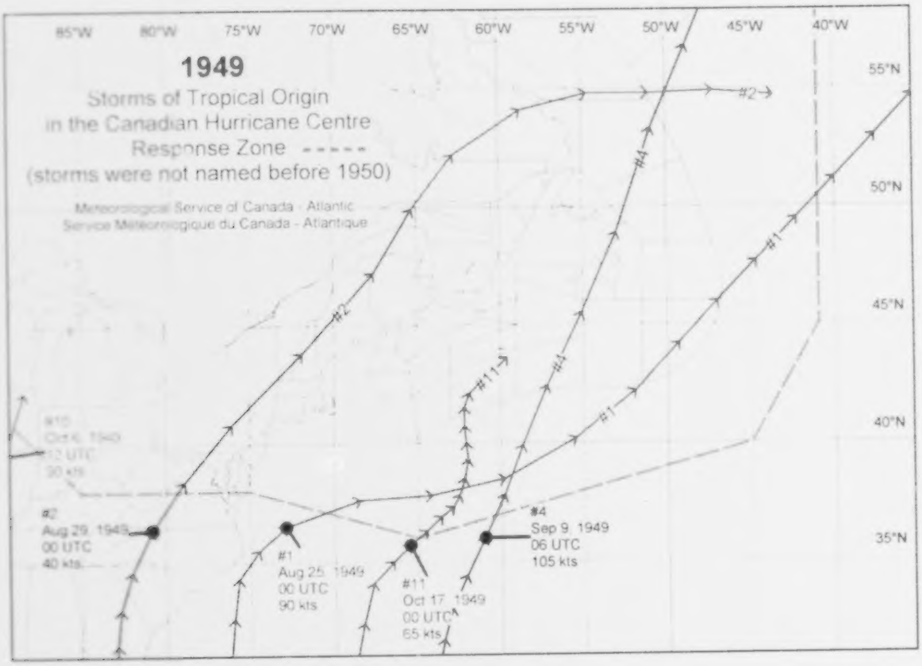
Storms of Tropical Origin
in the Canadian Hurricane Centre
Response Zone - - - - -
(storms were not named before 1950)

Meteorological Service of Canada - Atlantic
Service Météorologique du Canada - Atlantique

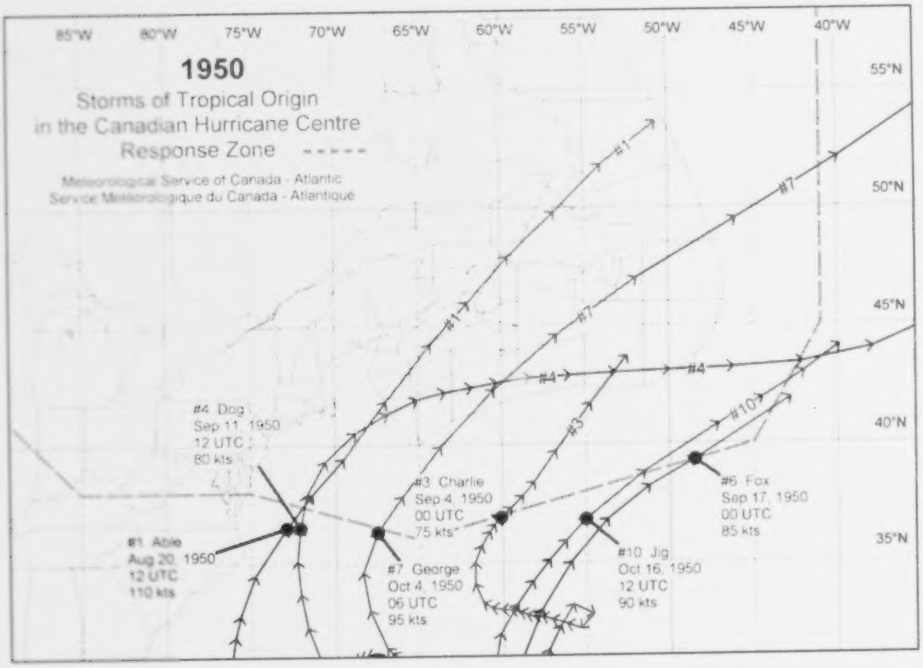
85°W
80°W
75°W
70°W
65°W
60°W
55°W
50°W
45°W
40°W
55°N
50°N
45°N
40°N
35°N
#2
Jul 7, 1946
18 UTC
70 kts
#4
Sep 14, 1946
12 UTC
75 kts


85°W
80°W
75°W
70°W
65°W
60°W
55°W
50°W
45°W
40°W
55°N
50°N
45°N
40°N
35°N
1947
Storms of Tropical Origin
in the Canadian Hurricane Centre
Response Zone -----
(storms were not named before 1950)
Meteorological Service of Canada - Atlantic
Service Météorologique du Canada - Atlantique
#5
Sep 25, 1947
12 UTC
15 kts
#9
Oct 21, 1947
06 UTC
85 kts


85°W
80°W
75°W
70°W
65°W
60°W
55°W
50°W
45°W
40°W
55°N
50°N
45°N
40°N
35°N
1948
Storms of Tropical Origin
in the Canadian Hurricane Centre
Response Zone -----
(storms were not named before 1950)
Meteorological Service of Canada - Atlantic
Service Météorologique du Canada - Atlantique
#3
#6
#7
#5
Sep 6, 1948
12 UTC
25 kts
#7
Sep 24, 1948
06 UTC
75 kts
#3
Aug 31, 1948
18 UTC
70 kts
#6
Sep 14, 1948
06 UTC
100 kts
#1
May 28, 1948
12 UTC
30 kts
#8
Oct 15, 1948
18 UTC
35 kts
#8


85°W
80°W
75°W
70°W
65°W
60°W
55°W
50°W
45°W
40°W
55°N
50°N
45°N
40°N
35°N
1949
Storms of Tropical Origin
in the Canadian Hurricane Centre
Response Zone - - - - -
(storms were not named before 1950)
Meteorological Service of Canada - Atlantic
Service Météorologique du Canada - Atlantique
#2
#4
#1
#11
#10
Oct 6, 1949
12 UTC
90 kts
#2
Aug 29, 1949
00 UTC
40 kts
#1
Aug 25, 1949
00 UTC
90 kts
#11
Oct 17, 1949
00 UTC
65 kts
#4
Sep 9, 1949
06 UTC
105 kts

1950's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45°W
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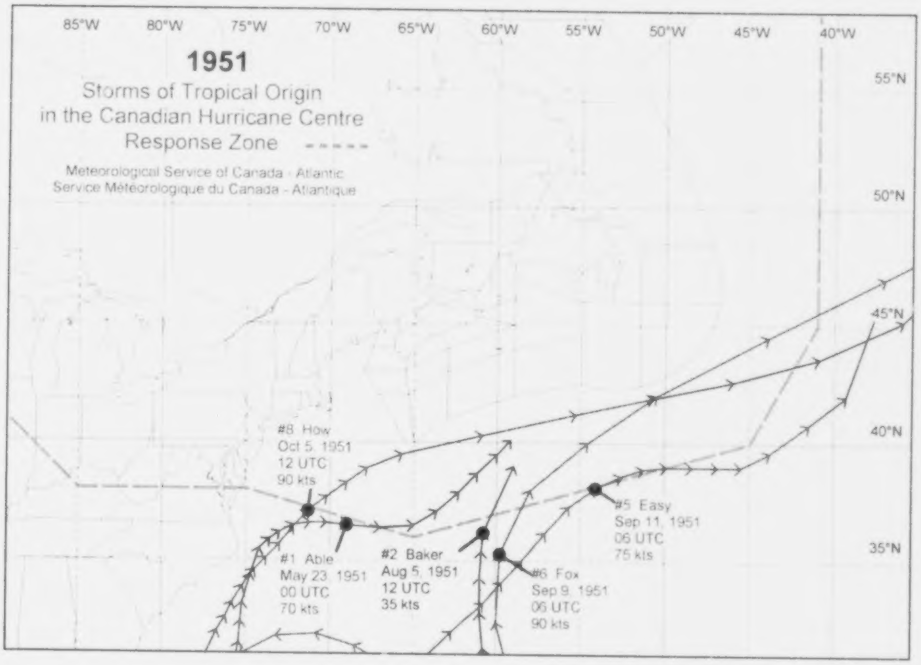
55°N
50°N
45°N
40°N
35°N
1950
Storms of Tropical Origin
in the Canadian Hurricane Centre
Response Zone - - - - -
Meteorological Service of Canada - Atlantic
Service Météorologique du Canada - Atlantique
#1
#7
#4
#4
#3
#10
#4 Dog
Sep 11, 1950
12 UTC
80 kts
#1 Able
Aug 20, 1950
12 UTC
110 kts
#3 Charlie
Sep 4, 1950
00 UTC
75 kts
#7 George
Oct 4, 1950
06 UTC
95 kts
#10 Jig
Oct 16, 1950
12 UTC
90 kts
#6 Fox
Sep 17, 1950
00 UTC
85 kts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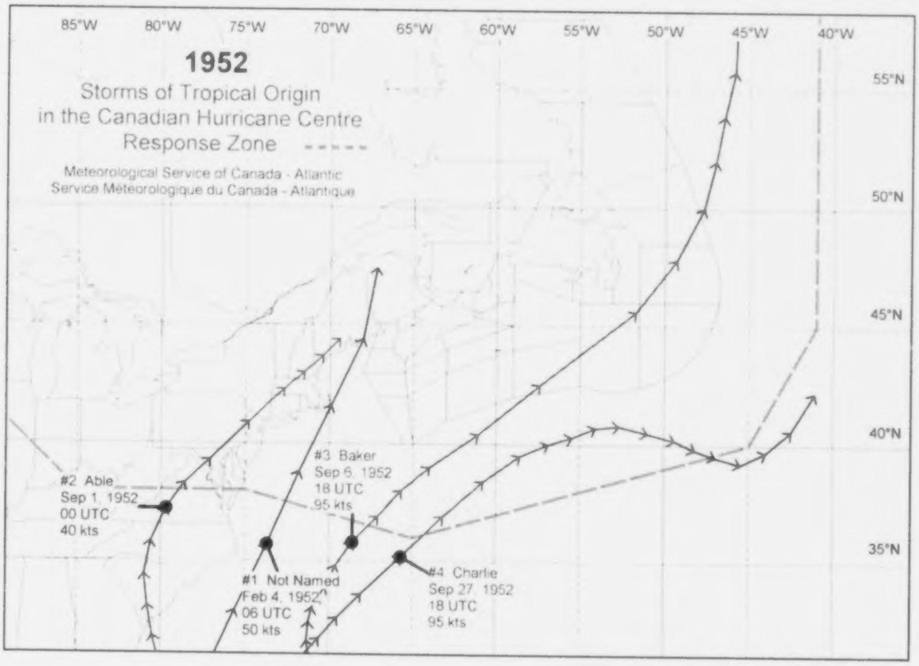
45°N
40°N
35°N
1951
Storms of Tropical Origin
in the Canadian Hurricane Centre
Response Zone
Meteorological Service of Canada - Atlantic
Service Météorologique du Canada - Atlantique
#8 How
Oct 5, 1951
12 UTC
90 kts
#1 Able
May 23, 1951
00 UTC
70 kts
#2 Baker
Aug 5, 1951
12 UTC
35 kts
#6 Fox
Sep 9, 1951
06 UTC
90 kts
#5 Easy
Sep 11, 1951
06 UTC
75 kts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50°W
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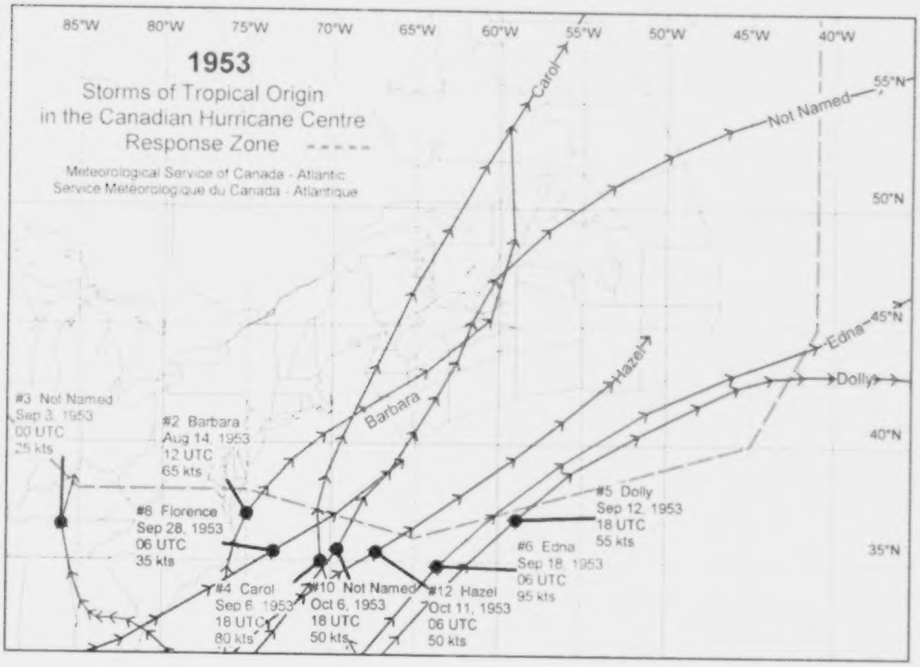
45°N
40°N
35°N
1952
Storms of Tropical Origin
in the Canadian Hurricane Centre
Response Zone
Meteorological Service of Canada - Atlantic
Service Météorologique du Canada - Atlantique
#2 Able
Sep 1, 1952
00 UTC
40 kts
#3 Baker
Sep 6, 1952
18 UTC
95 kts
#1 Not Named
Feb 4, 1952
06 UTC
50 kts
#4 Charlie
Sep 27, 1952
18 UTC
95 kts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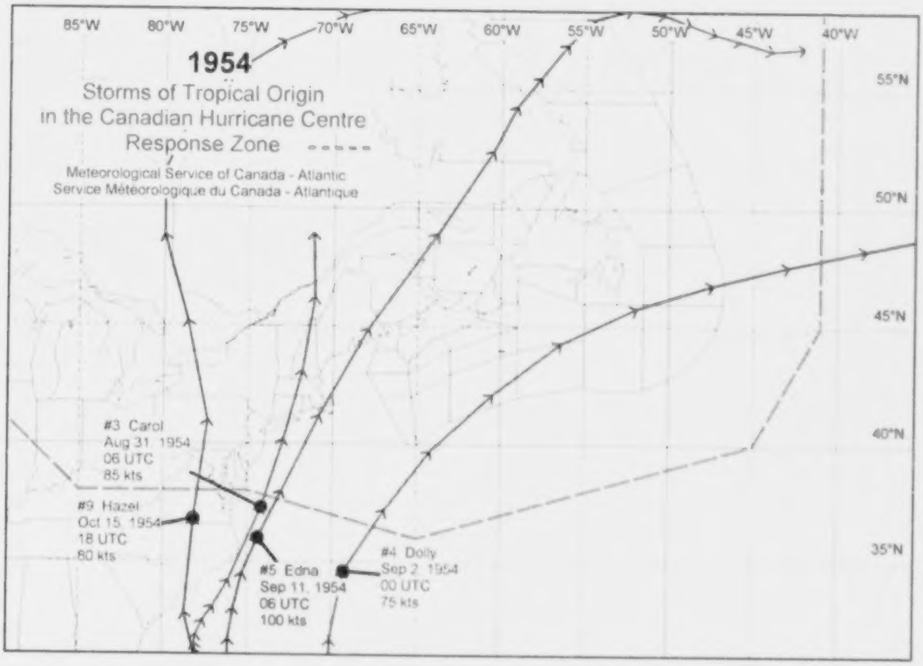
55°W
50°W
45°W
40°W
55°N
50°N
45°N
40°N
35°N
1953
Storms of Tropical Origin
in the Canadian Hurricane Centre
Response Zone
Meteorological Service of Canada - Atlantic
Service Météorologique du Canada - Atlantique
Carol
Not Named
Edna
Dolly
Hazel
Barbara
#3 Not Named
Sep 3, 1953
00 UTC
25 kts
#2 Barbara
Aug 14, 1953
12 UTC
65 kts
#8 Florence
Sep 28, 1953
06 UTC
35 kts
#4 Carol
Sep 6, 1953
18 UTC
80 kts
#10 Not Named
Oct 6, 1953
18 UTC
50 kts
#12 Hazel
Oct 11, 1953
06 UTC
50 kts
#6 Edna
Sep 18, 1953
06 UTC
95 kts
#5 Dolly
Sep 12, 1953
18 UTC
55 kts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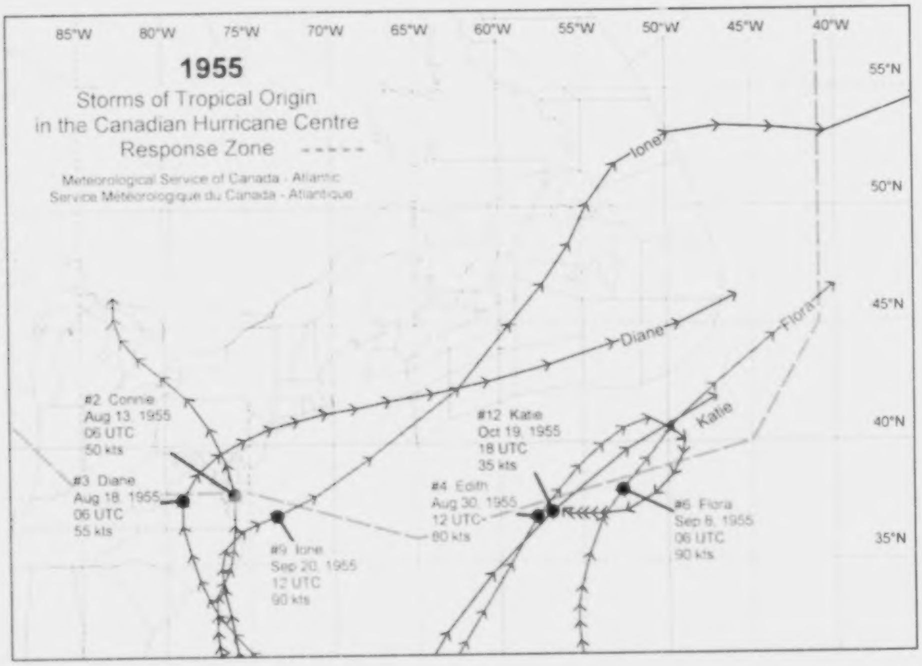
45°N
40°N
35°N
1954
Storms of Tropical Origin
in the Canadian Hurricane Centre
Response Zone
Meteorological Service of Canada - Atlantic
Service Météorologique du Canada - Atlantique
#3 Carol
Aug 31, 1954
06 UTC
85 kts
#9 Hazel
Oct 15, 1954
18 UTC
80 kts
#5 Edna
Sep 11, 1954
06 UTC
100 kts
#4 Dolly
Sep 2, 1954
00 UTC
75 kts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50°W
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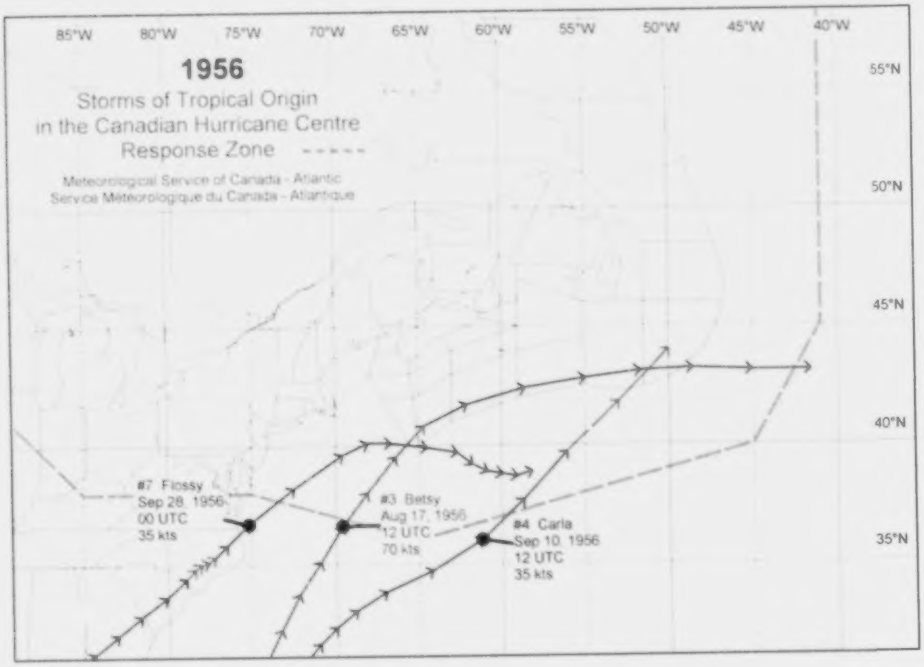
50°N
45°N
40°N
35°N
1955
Storms of Tropical Origin
in the Canadian Hurricane Centre
Response Zone - - - - -
Meteorological Service of Canada - Atlantic
Service Météorologique du Canada - Atlantique
Ione
Diane
Flora
Katie
#2 Connie
Aug 13, 1955
06 UTC
50 kts
#3 Diane
Aug 18, 1955
06 UTC
55 kts
#9 Ione
Sep 20, 1955
12 UTC
90 kts
#12 Katie
Oct 19, 1955
18 UTC
35 kts
#4 Edith
Aug 30, 1955
12 UTC
80 kts
#6 Flora
Sep 6, 1955
06 UTC
90 kts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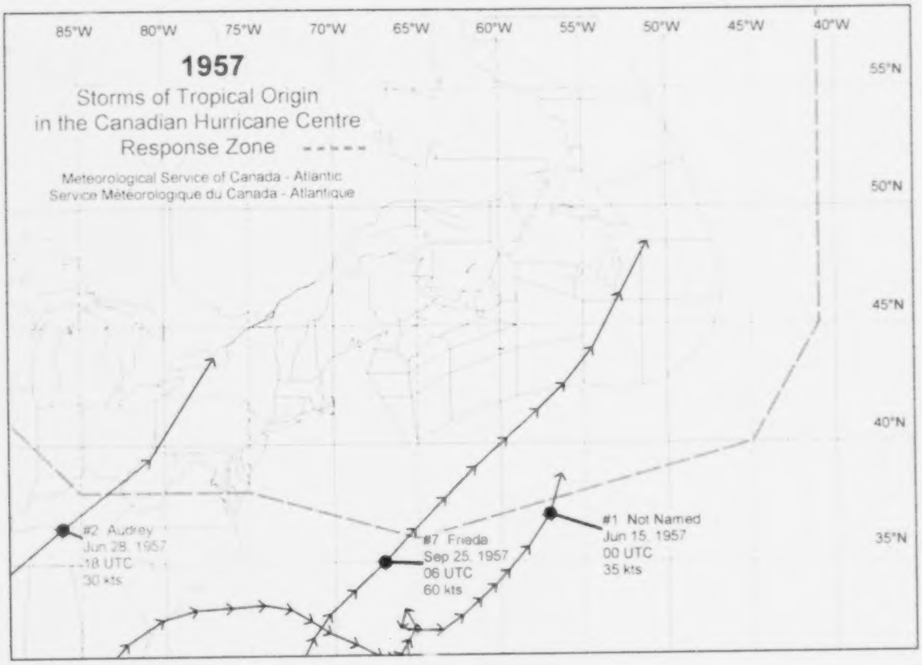
70°W
65°W
60°W
55°W
50°W
45°W
40°W
55°N
50°N
45°N
40°N
35°N
1956
Storms of Tropical Origin
in the Canadian Hurricane Centre
Response Zone - - - - -
Meteorological Service of Canada - Atlantic
Service Météorologique du Canada - Atlantique
#7 Flossy
Sep 28, 1956
00 UTC
35 kts
#3 Betsy
Aug 17, 1956
12 UTC
70 kts
#4 Carla
Sep 10, 1956
12 UTC
35 kts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60°W
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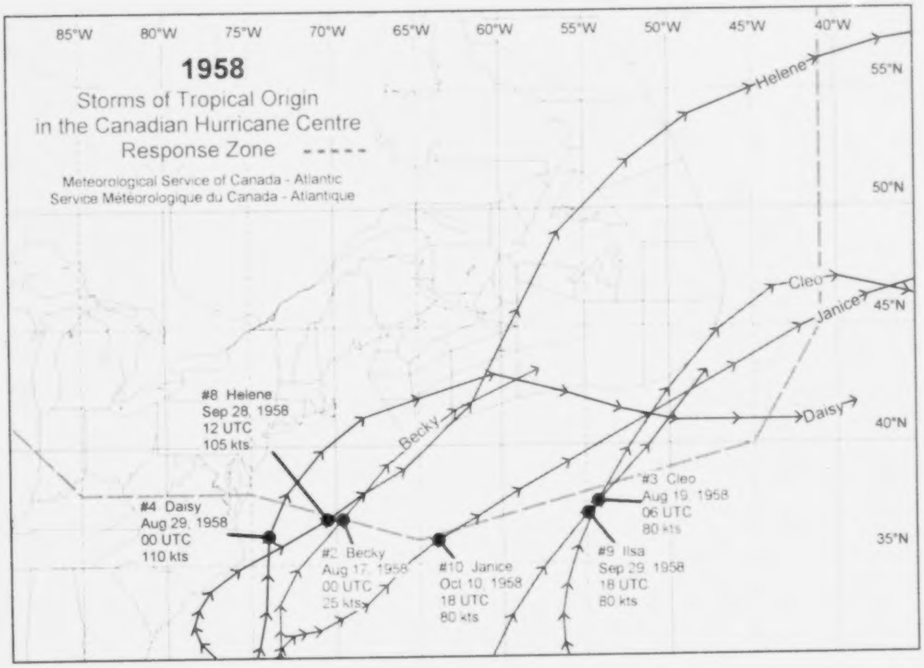
50°W
45°W
40°W
55°N
50°N
45°N
40°N
35°N
1957
Storms of Tropical Origin
in the Canadian Hurricane Centre
Response Zone
Meteorological Service of Canada - Atlantic
Service Météorologique du Canada - Atlantique
#2 Audrey
Jun 28, 1957
18 UTC
30 kts
#7 Frieda
Sep 25, 1957
06 UTC
60 kts
#1 Not Named
Jun 15, 1957
00 UTC
35 kts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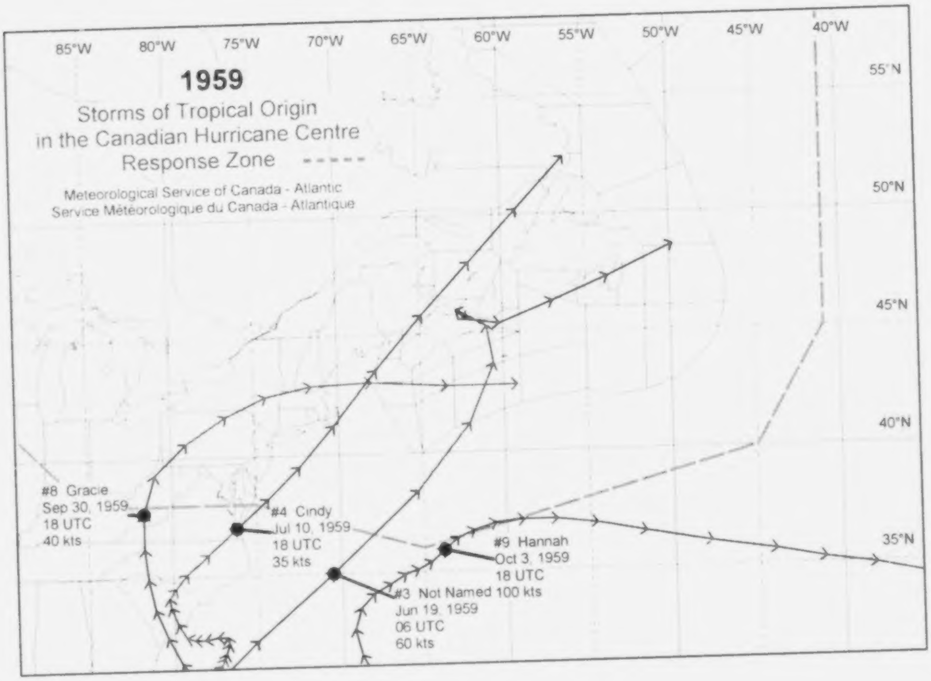
50°W
45°W
40°W
55°N
50°N
45°N
40°N
35°N
1958
Storms of Tropical Origin
in the Canadian Hurricane Centre
Response Zone
Meteorological Service of Canada - Atlantic
Service Météorologique du Canada - Atlantique
Helene
Cleo
Janice
Daisy
Becky
#8 Helene
Sep 28, 1958
12 UTC
105 kts
#4 Daisy
Aug 29, 1958
00 UTC
110 kts
#2 Becky
Aug 17, 1958
00 UTC
25 kts
#10 Janice
Oct 10, 1958
18 UTC
80 kts
#3 Cleo
Aug 19, 1958
06 UTC
80 kts
#9 Ilsa
Sep 29, 1958
18 UTC
80 kts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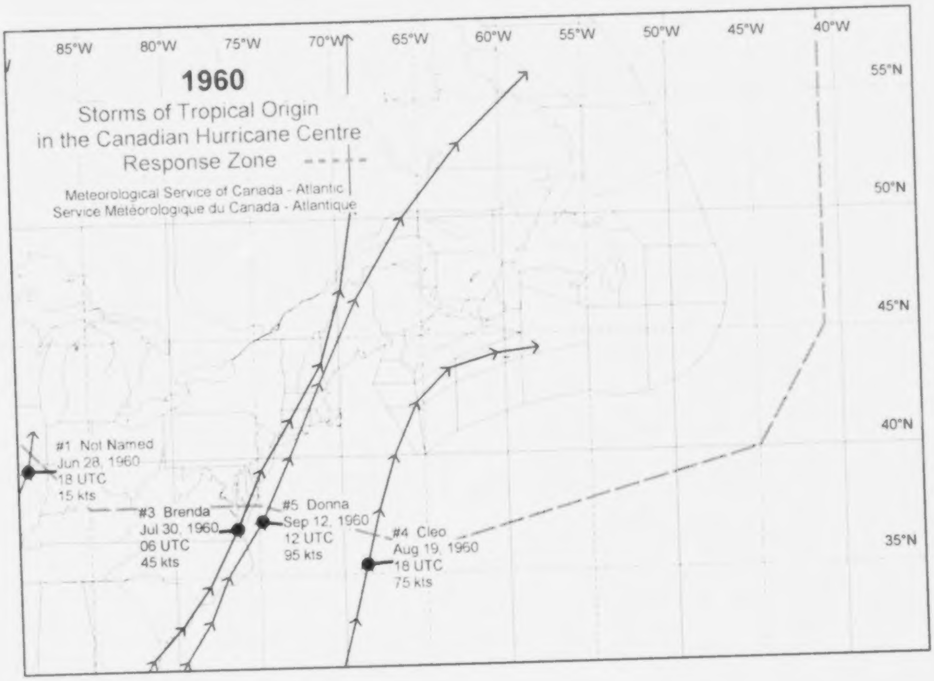
50°W
45°W
40°W
55°N
50°N
45°N
40°N
35°N
1959
Storms of Tropical Origin in the Canadian Hurricane Centre Response Zone
Meteorological Service of Canada - Atlantic
Service Météorologique du Canada - Atlantique
#8 Gracie
Sep 30, 1959
18 UTC
40 kts
#4 Cindy
Jul 10, 1959
18 UTC
35 kts
#9 Hannah
Oct 3, 1959
18 UTC
100 kts
#3 Not Named
Jun 19, 1959
06 UTC
60 kts

1960's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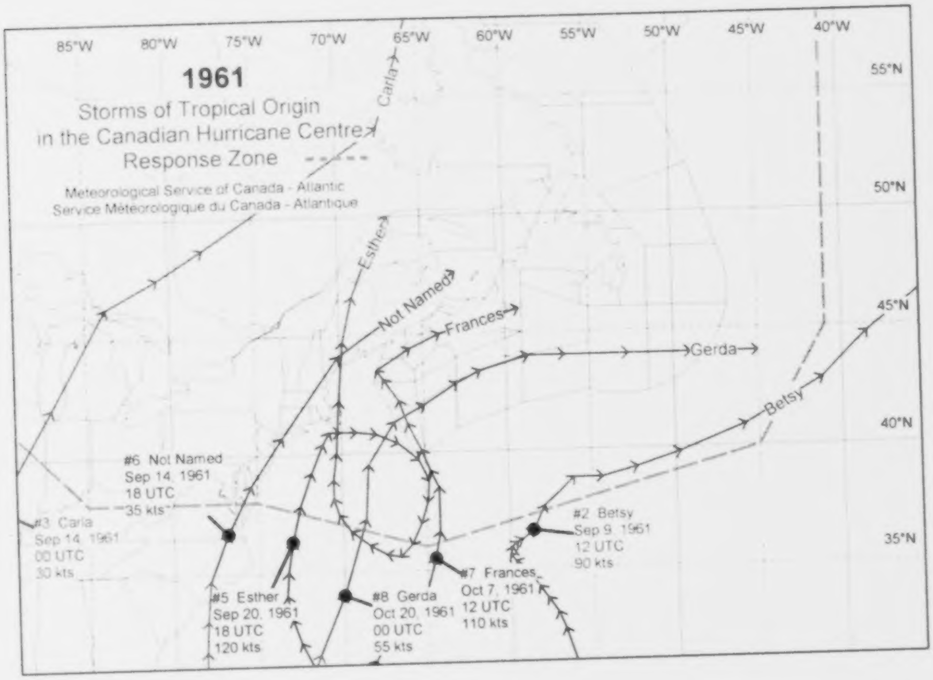
60°W
55°W
50°W
45°W
40°W
55°N
50°N
45°N
40°N
35°N
1960
Storms of Tropical Origin in the Canadian Hurricane Centre Response Zone
Meteorological Service of Canada - Atlantic
Service Météorologique du Canada - Atlantique
#1 Not Named
Jun 28, 1960
18 UTC
15 kts
#3 Brenda
Jul 30, 1960
06 UTC
45 kts
#5 Donna
Sep 12, 1960
12 UTC
95 kts
#4 Cleo
Aug 19, 1960
18 UTC
75 kts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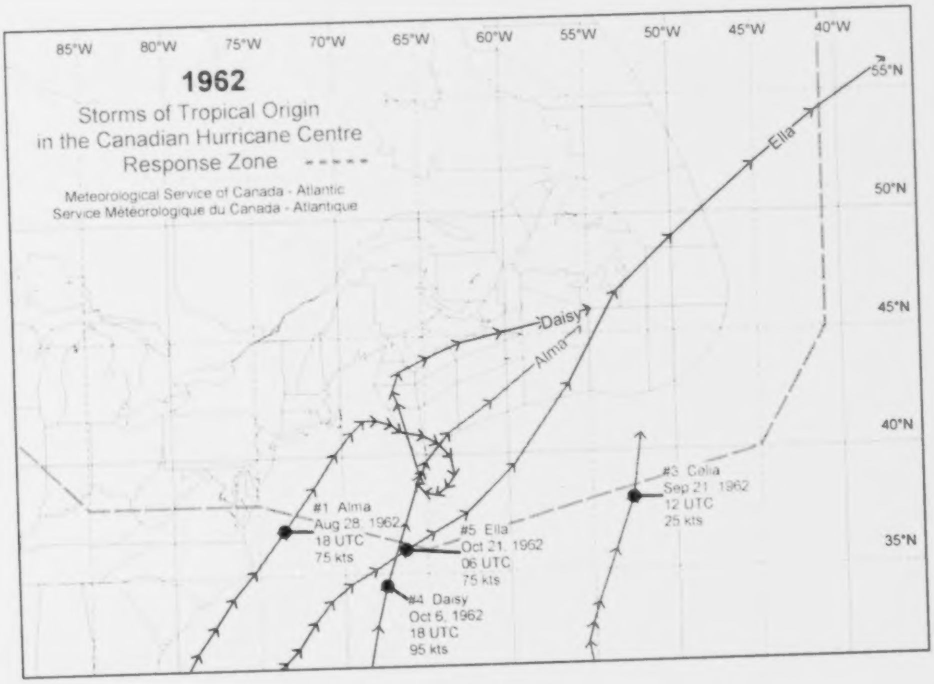
50°W
45°W
40°W
55°N
50°N
45°N
40°N
35°N
1961
Storms of Tropical Origin
in the Canadian Hurricane Centre
Response Zone
Meteorological Service of Canada - Atlantic
Service Météorologique du Canada - Atlantique
Carla
Esther
Not Named
Frances
Gerda
Betsy
#6 Not Named
Sep 14 1961
18 UTC
35 kts
#3 Carla
Sep 14 1961
00 UTC
30 kts
#5 Esther
Sep 20, 1961
18 UTC
120 kts
#8 Gerda
Oct 20, 1961
00 UTC
55 kts
#7 Frances
Oct 7, 1961
12 UTC
110 kts
#2 Betsy
Sep 9, 1961
12 UTC
90 kts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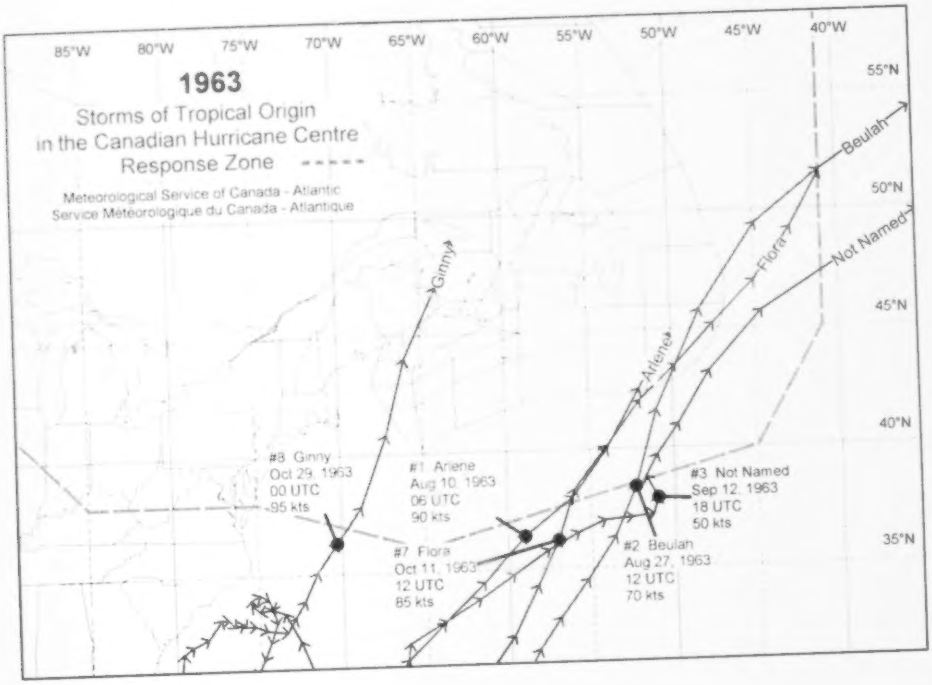
50°W
45°W
40°W
55°N
50°N
45°N
40°N
35°N
1962
Storms of Tropical Origin
in the Canadian Hurricane Centre
Response Zone
Meteorological Service of Canada - Atlantic
Service Météorologique du Canada - Atlantique
Ella
Daisy
Alma
#1 Alma
Aug 28, 1962
18 UTC
75 kts
#5 Ella
Oct 21, 1962
06 UTC
75 kts
#4 Daisy
Oct 6, 1962
18 UTC
95 kts
#3 Celia
Sep 21 1962
12 UTC
25 kts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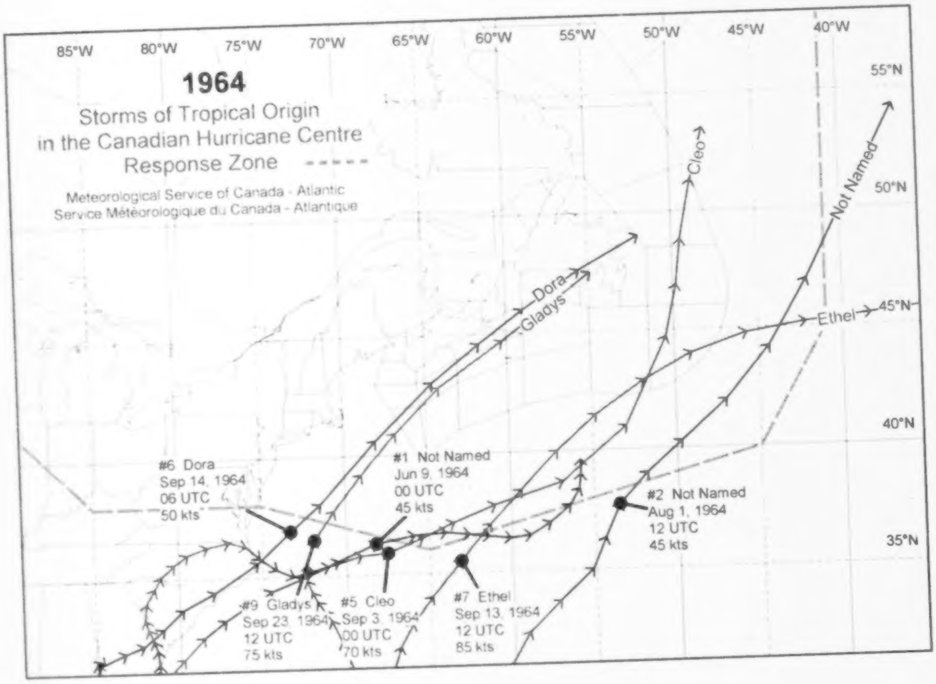
70°W
65°W
60°W
55°W
50°W
45°W
40°W
55°N
50°N
45°N
40°N
35°N
1963
Storms of Tropical Origin in the Canadian Hurricane Centre Response Zone
Meteorological Service of Canada - Atlantic
Service Météorologique du Canada - Atlantique
Ginny
Beulah
Flora
Not Named
Arlene
#8 Ginny Oct 29, 1963 00 UTC 95 kts
#1 Arlene Aug 10, 1963 06 UTC 90 kts
#7 Flora Oct 11, 1963 12 UTC 85 kts
#2 Beulah Aug 27, 1963 12 UTC 70 kts
#3 Not Named Sep 12, 1963 18 UTC 50 kts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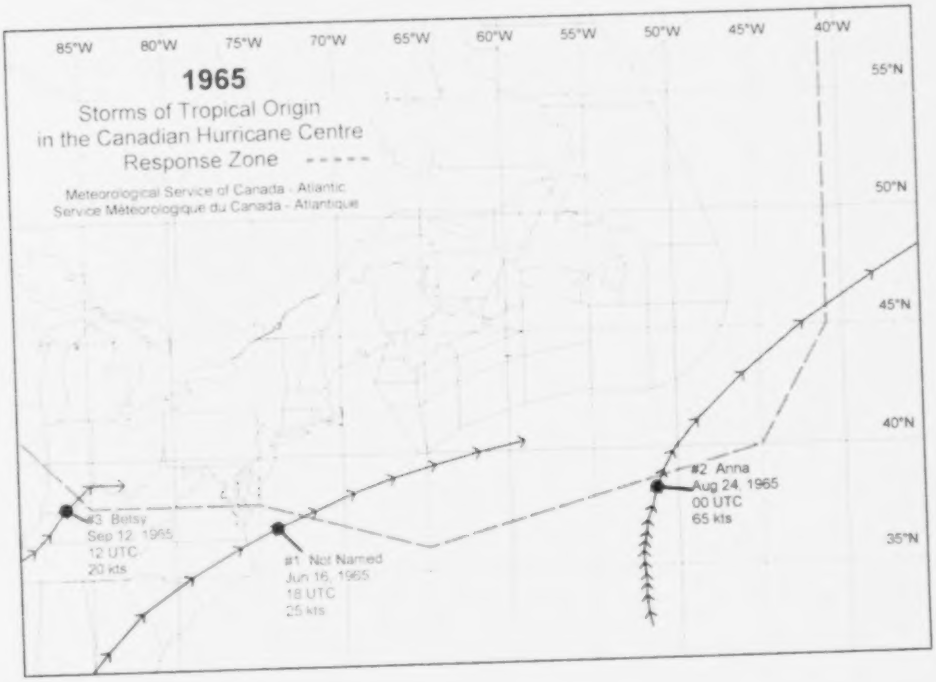
60°W
55°W
50°W
45°W
40°W
55°N
50°N
45°N
40°N
35°N
1964
Storms of Tropical Origin in the Canadian Hurricane Centre Response Zone
Meteorological Service of Canada - Atlantic
Service Météorologique du Canada - Atlantique
Cleo
Not Named
Dora
Gladys
Ethel
#6 Dora Sep 14, 1964 06 UTC 50 kts
#1 Not Named Jun 9, 1964 00 UTC 45 kts
#2 Not Named Aug 1, 1964 12 UTC 45 kts
#9 Gladys Sep 23, 1964 12 UTC 75 kts
#5 Cleo Sep 3, 1964 00 UTC 70 kts
#7 Ethel Sep 13, 1964 12 UTC 85 kts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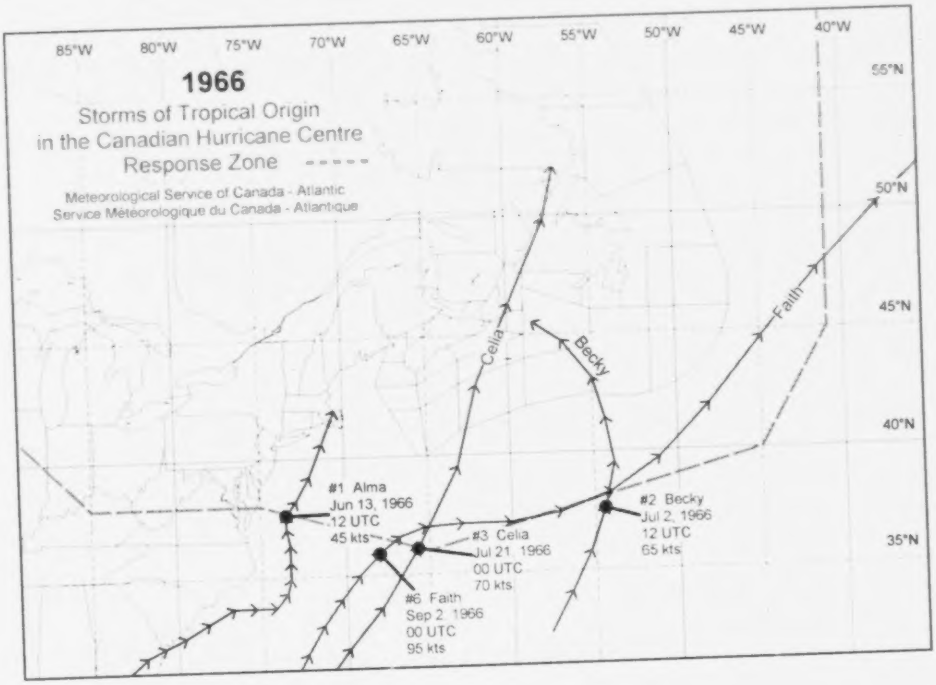
40°W
55°N
50°N
45°N
40°N
35°N
1965
Storms of Tropical Origin
in the Canadian Hurricane Centre
Response Zone
Meteorological Service of Canada - Atlantic
Service Météorologique du Canada - Atlantique
#3 Betsy
Sep 12, 1965
12 UTC
20 kts
#1 Not Named
Jun 16, 1965
18 UTC
25 kts
#2 Anna
Aug 24, 1965
00 UTC
65 kts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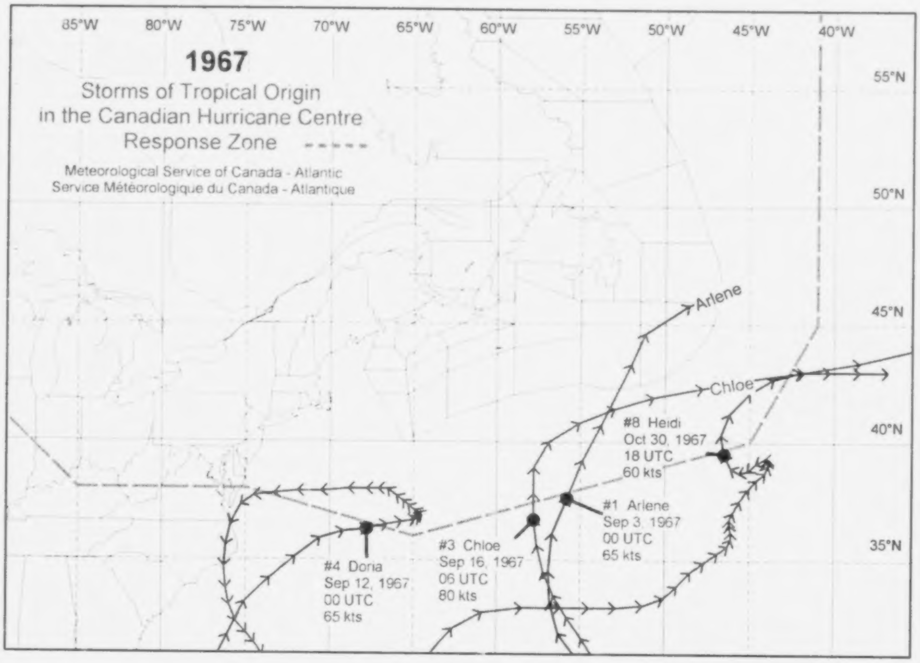
50°W
45°W
40°W
55°N
50°N
45°N
40°N
35°N
1966
Storms of Tropical Origin
in the Canadian Hurricane Centre
Response Zone
Meteorological Service of Canada - Atlantic
Service Météorologique du Canada - Atlantique
Celia
Becky
Faith
#1 Alma
Jun 13, 1966
12 UTC
45 kts
#3 Celia
Jul 21, 1966
00 UTC
70 kts
#6 Faith
Sep 2, 1966
00 UTC
95 kts
#2 Becky
Jul 2, 1966
12 UTC
65 kts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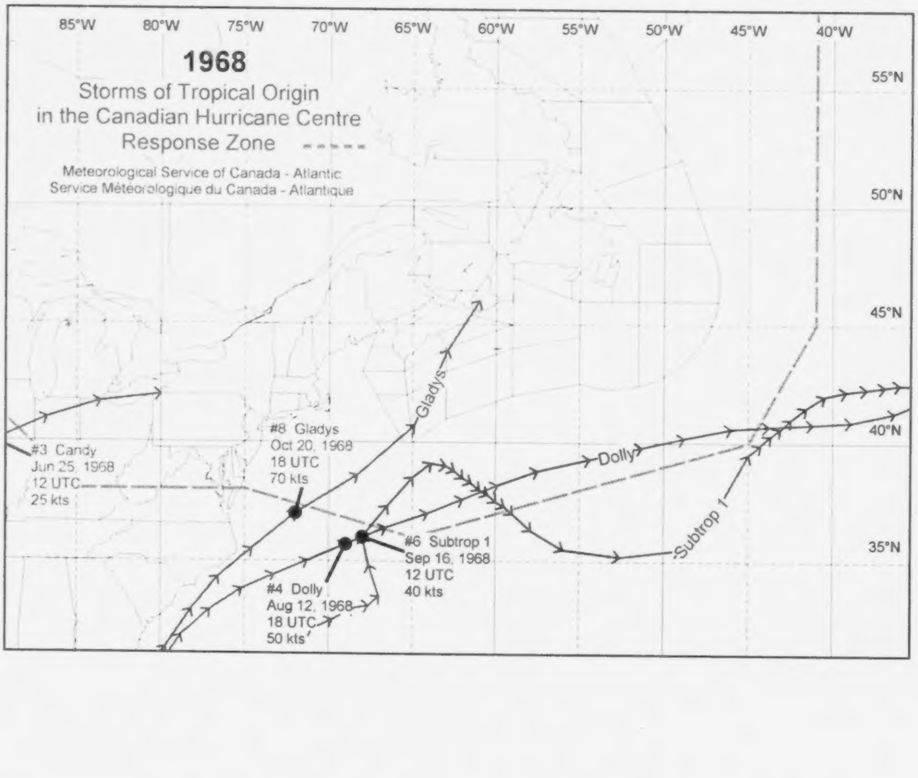
60°W
55°W
50°W
45°W
40°W
55°N
50°N
45°N
40°N
35°N
1967
Storms of Tropical Origin
in the Canadian Hurricane Centre
Response Zone
Meteorological Service of Canada - Atlantic
Service Météorologique du Canada - Atlantique
Arlene
Chloe
#8 Heidi
Oct 30, 1967
18 UTC
60 kts
#1 Arlene
Sep 3, 1967
00 UTC
65 kts
#3 Chloe
Sep 16, 1967
06 UTC
80 kts
#4 Doria
Sep 12, 1967
00 UTC
65 kts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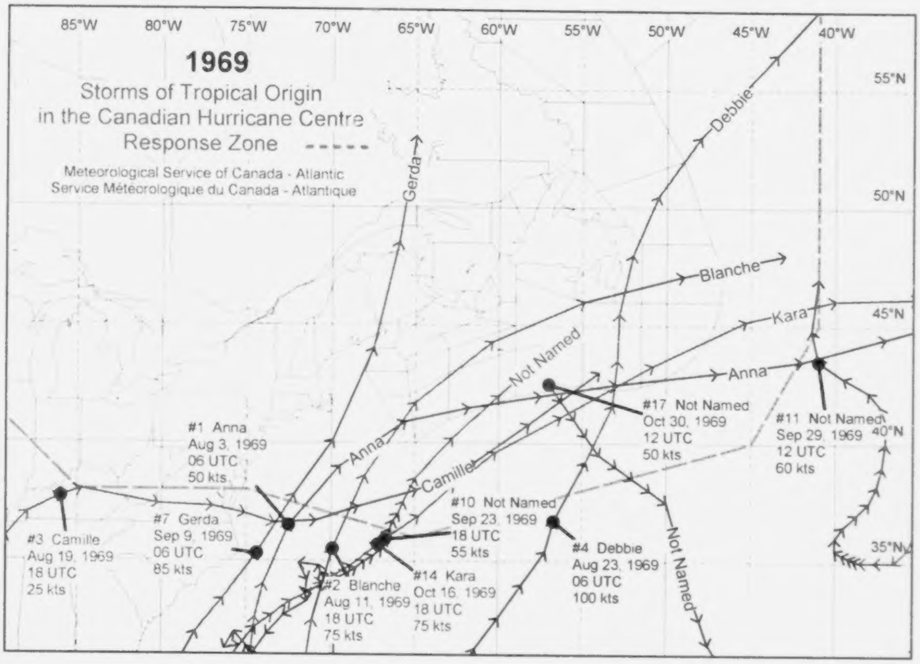
60°W
55°W
50°W
45°W
40°W
55°N
50°N
45°N
40°N
35°N
1968
Storms of Tropical Origin
in the Canadian Hurricane Centre
Response Zone
Meteorological Service of Canada - Atlantic
Service Météorologique du Canada - Atlantique
Gladys
#3 Candy
Jun 25, 1968
12 UTC
25 kts
#8 Gladys
Oct 20, 1968
18 UTC
70 kts
Dolly
Subtrop 1
#6 Subtrop 1
Sep 16, 1968
12 UTC
40 kts
#4 Dolly
Aug 12, 1968
18 UTC
50 kts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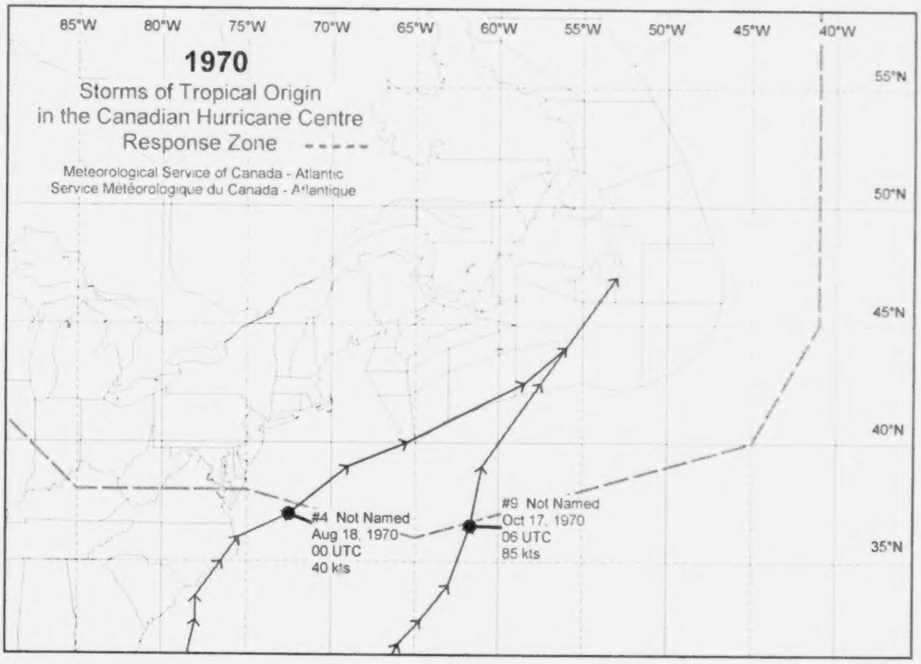
65°W
60°W
55°W
50°W
45°W
40°W
55°N
50°N
45°N
40°N
35°N
1969
Storms of Tropical Origin in the Canadian Hurricane Centre Response Zone
Meteorological Service of Canada - Atlantic
Service Météorologique du Canada - Atlantique
Gerda
Debbie
Blanche
Kara
Anna
Not Named
Anna
Camille
Not Named
#1 Anna Aug 3, 1969 06 UTC 50 kts
#3 Camille Aug 19, 1969 18 UTC 25 kts
#7 Gerda Sep 9, 1969 06 UTC 85 kts
#2 Blanche Aug 11, 1969 18 UTC 75 kts
#14 Kara Oct 16, 1969 18 UTC 75 kts
#10 Not Named Sep 23, 1969 18 UTC 55 kts
#4 Debbie Aug 23, 1969 06 UTC 100 kts
#17 Not Named Oct 30, 1969 12 UTC 50 kts
#11 Not Named Sep 29, 1969 12 UTC 60 kts

1970's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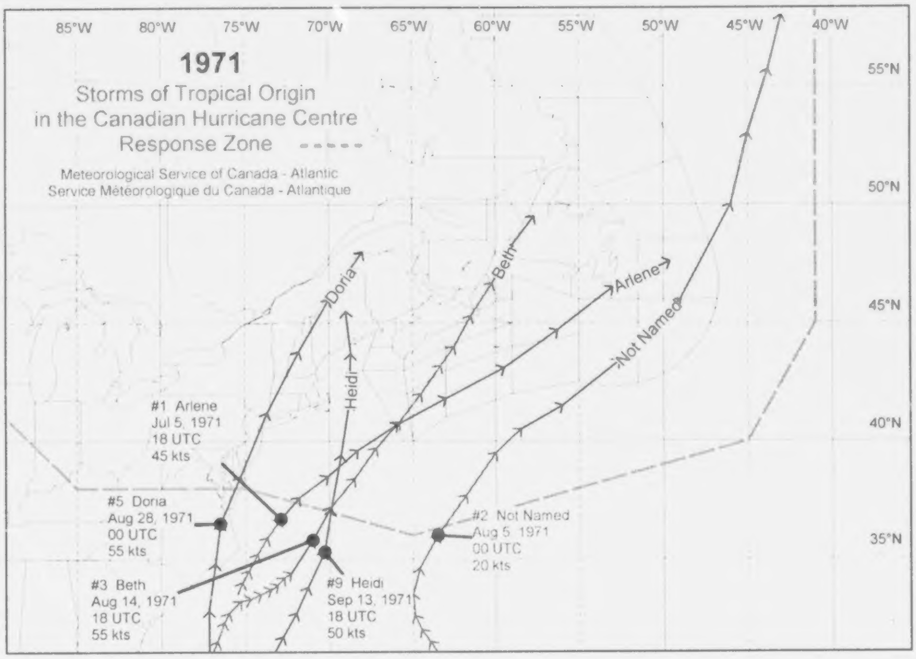
65°W
60°W
55°W
50°W
45°W
40°W
55°N
50°N
45°N
40°N
35°N
1970
Storms of Tropical Origin in the Canadian Hurricane Centre Response Zone
Meteorological Service of Canada - Atlantic
Service Météorologique du Canada - Atlantique
#4 Not Named Aug 18, 1970 00 UTC 40 kts
#9 Not Named Oct 17, 1970 06 UTC 85 kts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70°W
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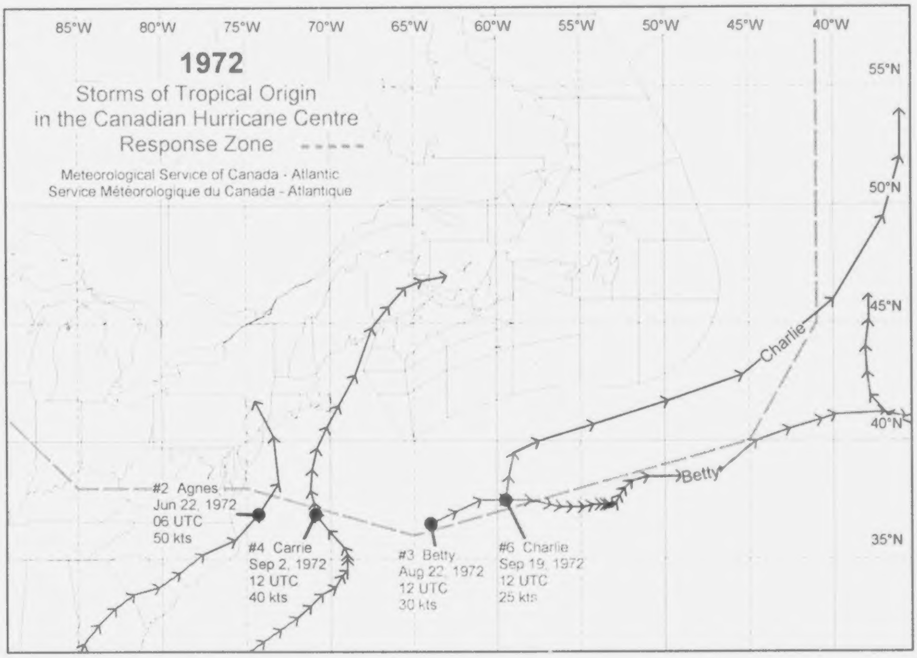
60°W
55°W
50°W
45°W
40°W
55°N
50°N
45°N
40°N
35°N
1971
Storms of Tropical Origin
in the Canadian Hurricane Centre
Response Zone
Meteorological Service of Canada - Atlantic
Service Météorologique du Canada - Atlantique
Doria
Beth
Arlene
Not Named
Heidi
#1 Arlene
Jul 5, 1971
18 UTC
45 kts
#5 Doria
Aug 28, 1971
00 UTC
55 kts
#3 Beth
Aug 14, 1971
18 UTC
55 kts
#9 Heidi
Sep 13, 1971
18 UTC
50 kts
#2 Not Named
Aug 5, 1971
00 UTC
20 kts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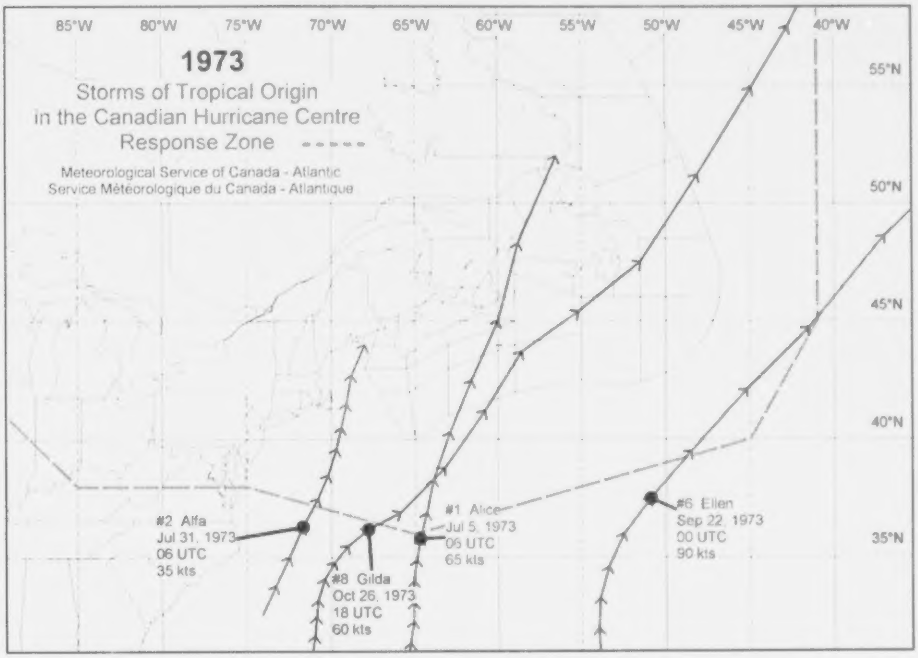
65°W
60°W
55°W
50°W
45°W
40°W
55°N
50°N
45°N
40°N
35°N
1972
Storms of Tropical Origin
in the Canadian Hurricane Centre
Response Zone
Meteorological Service of Canada - Atlantic
Service Météorologique du Canada - Atlantique
Charlie
Betty
#2 Agnes
Jun 22, 1972
06 UTC
50 kts
#4 Carrie
Sep 2, 1972
12 UTC
40 kts
#3 Betty
Aug 22, 1972
12 UTC
30 kts
#6 Charlie
Sep 19, 1972
12 UTC
25 kts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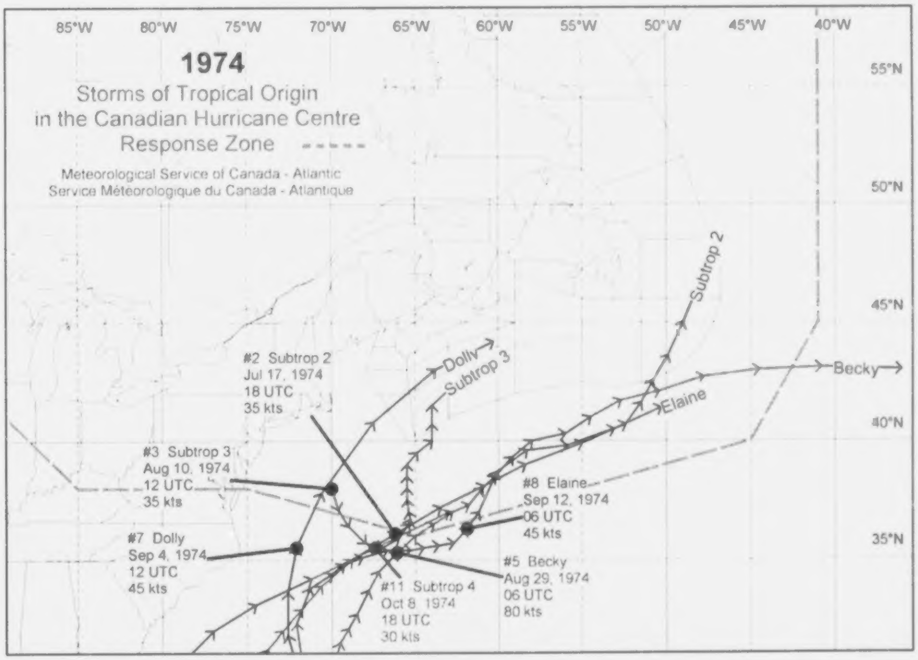
60°W
55°W
50°W
45°W
40°W
55°N
50°N
45°N
40°N
35°N
1973
Storms of Tropical Origin
in the Canadian Hurricane Centre
Response Zone
Meteorological Service of Canada - Atlantic
Service Météorologique du Canada - Atlantique
#2 Alfa
Jul 31, 1973
06 UTC
35 kts
#8 Gilda
Oct 26, 1973
18 UTC
60 kts
#1 Alice
Jul 5, 1973
06 UTC
65 kts
#6 Ellen
Sep 22, 1973
00 UTC
90 kts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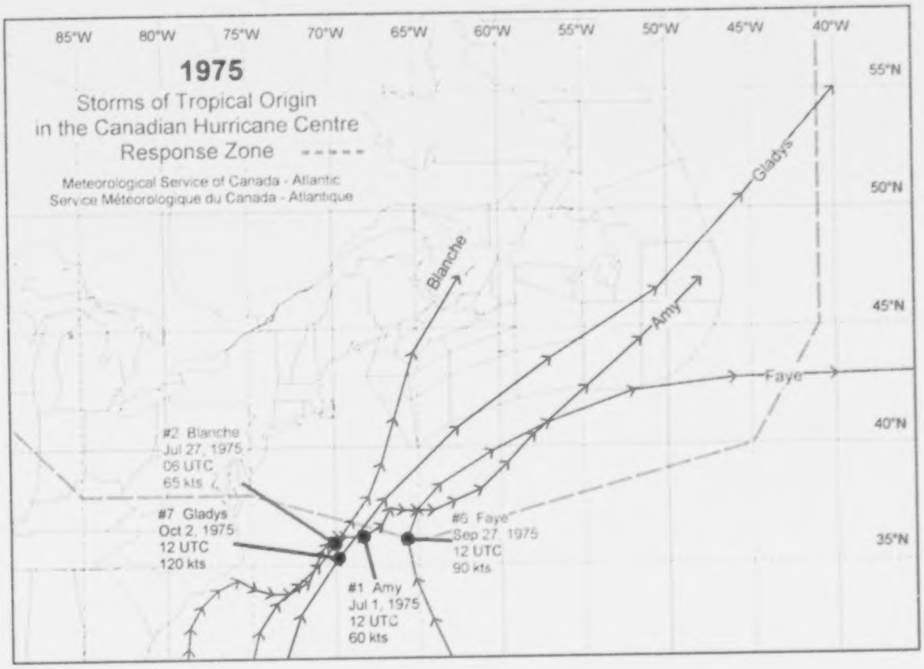
70°W
65°W
60°W
55°W
50°W
45°W
40°W
55°N
50°N
45°N
40°N
35°N
1974
Storms of Tropical Origin
in the Canadian Hurricane Centre
Response Zone
Meteorological Service of Canada - Atlantic
Service Météorologique du Canada - Atlantique
Subtrop 2
Dolly
Subtrop 3
Becky
Elaine
#2 Subtrop 2
Jul 17, 1974
18 UTC
35 kts
#3 Subtrop 3
Aug 10, 1974
12 UTC
35 kts
#7 Dolly
Sep 4, 1974
12 UTC
45 kts
#8 Elaine
Sep 12, 1974
06 UTC
45 kts
#5 Becky
Aug 29, 1974
06 UTC
80 kts
#11 Subtrop 4
Oct 8, 1974
18 UTC
30 kts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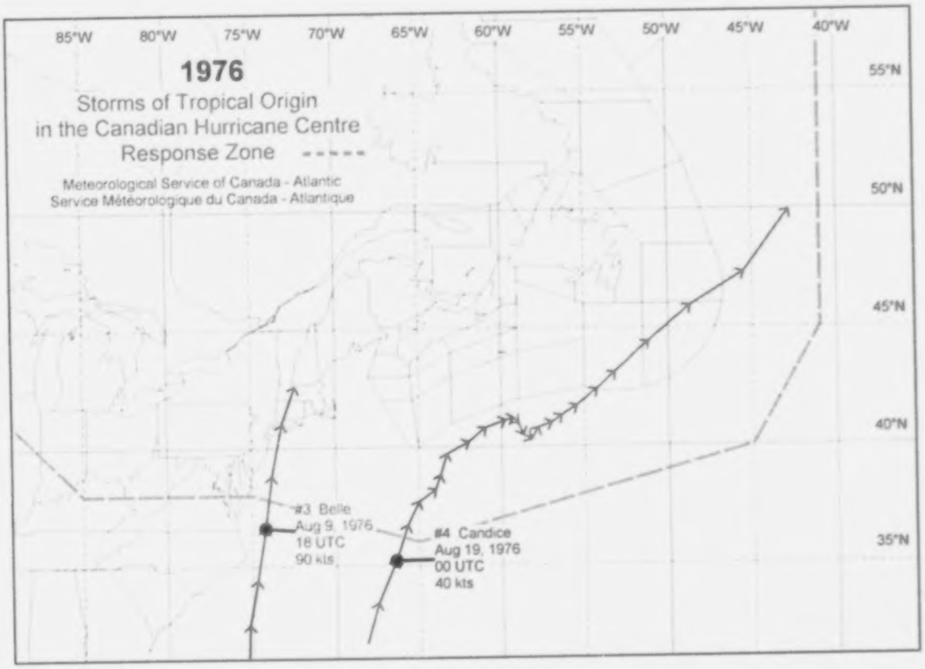
45°W
40°W
55°N
50°N
45°N
40°N
35°N
1975
Storms of Tropical Origin
in the Canadian Hurricane Centre
Response Zone
Meteorological Service of Canada - Atlantic
Service Météorologique du Canada - Atlantique
Blanche
Gladys
Amy
Faye
#2 Blanche
Jul 27, 1975
06 UTC
65 kts
#7 Gladys
Oct 2, 1975
12 UTC
120 kts
#1 Amy
Jul 1, 1975
12 UTC
60 kts
#6 Faye
Sep 27, 1975
12 UTC
90 kts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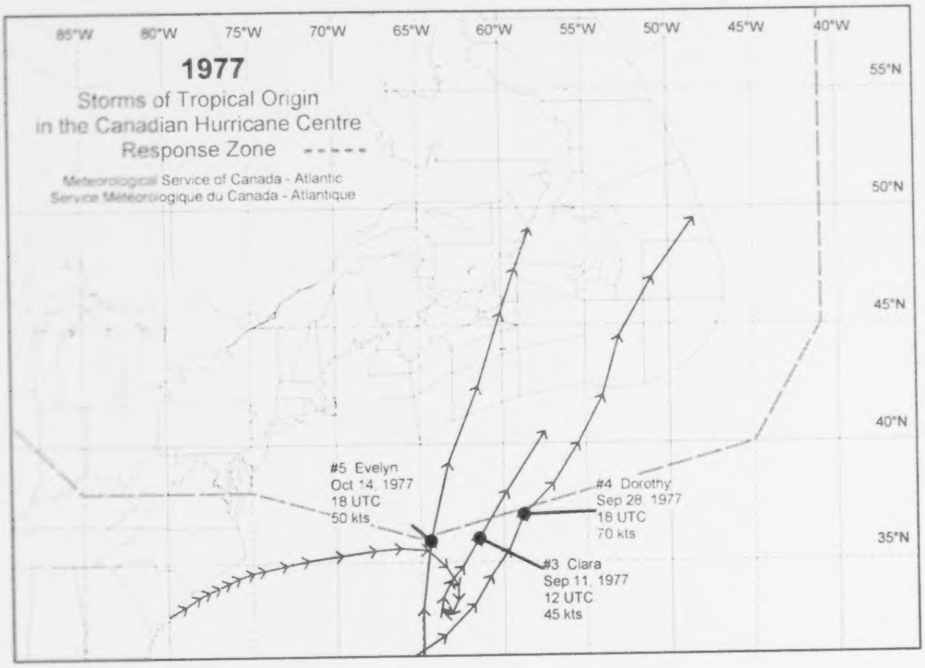
55°N
50°N
45°N
40°N
35°N
1976
Storms of Tropical Origin
in the Canadian Hurricane Centre
Response Zone
Meteorological Service of Canada - Atlantic
Service Météorologique du Canada - Atlantique
#3 Belle
Aug 9, 1976
18 UTC
90 kts
#4 Candice
Aug 19, 1976
00 UTC
40 kts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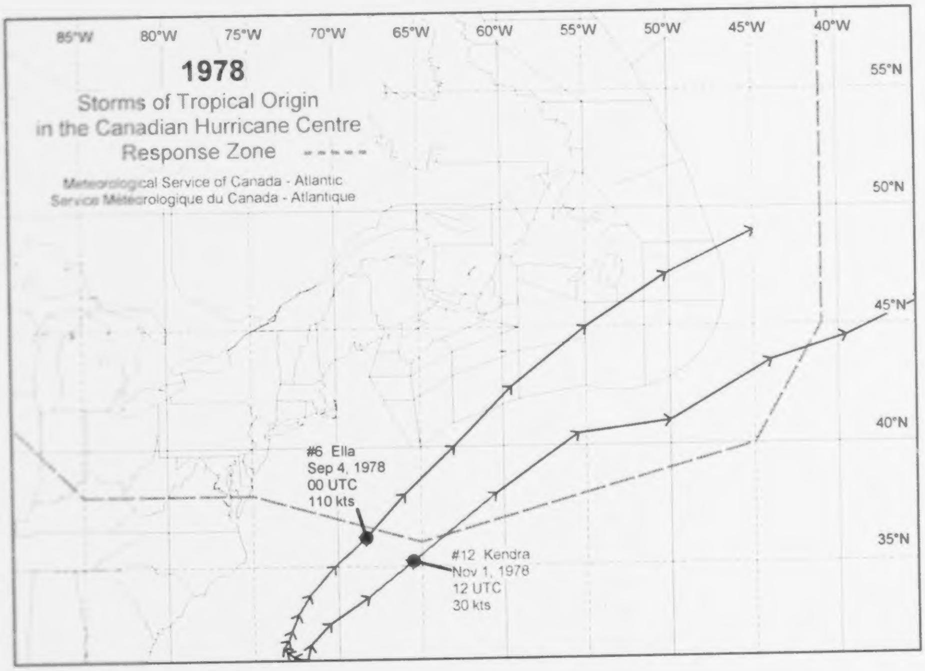
55°N
50°N
45°N
40°N
35°N
1977
Storms of Tropical Origin
in the Canadian Hurricane Centre
Response Zone
Meteorological Service of Canada - Atlantic
Service Météorologique du Canada - Atlantique
#5 Evelyn
Oct 14, 1977
18 UTC
50 kts
#4 Dorothy
Sep 28, 1977
18 UTC
70 kts
#3 Clara
Sep 11, 1977
12 UTC
45 kts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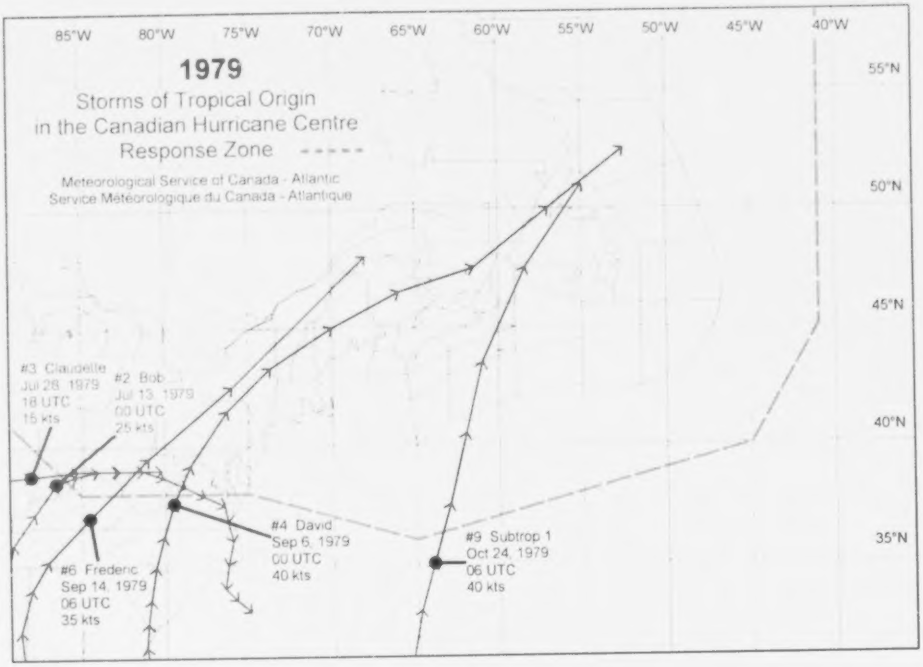
55°N
50°N
45°N
40°N
35°N
1978
Storms of Tropical Origin
in the Canadian Hurricane Centre
Response Zone
Meteorological Service of Canada - Atlantic
Service Météorologique du Canada - Atlantique
#6 Ella
Sep 4, 1978
00 UTC
110 kts
#12 Kendra
Nov 1, 1978
12 UTC
30 kts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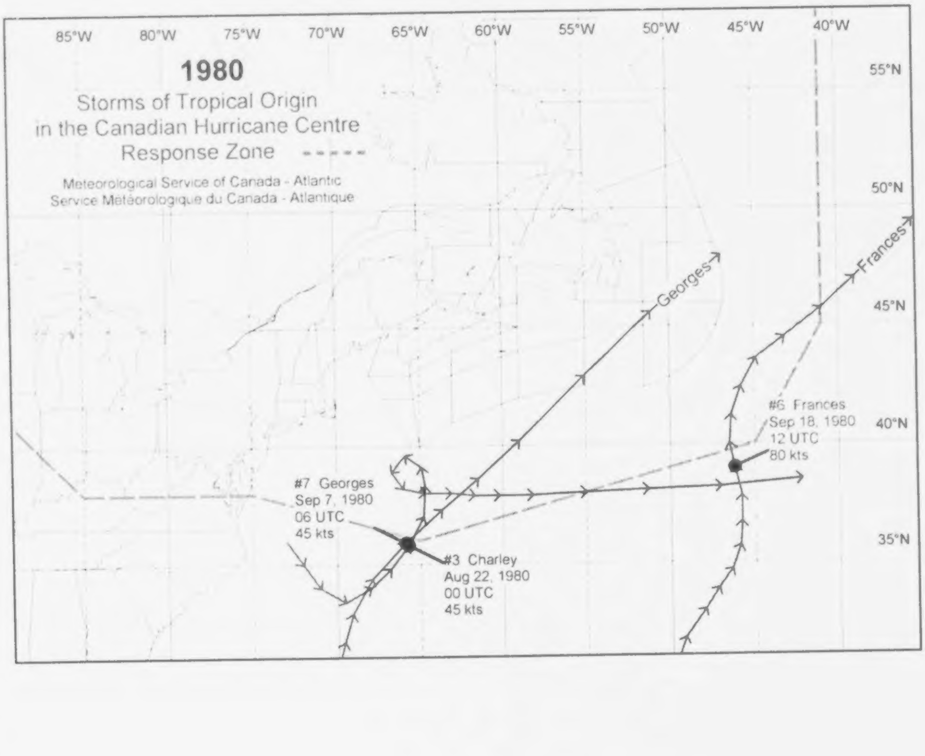
50°N
45°N
40°N
35°N
1979
Storms of Tropical Origin
in the Canadian Hurricane Centre
Response Zone
Meteorological Service of Canada - Atlantic
Service Météorologique du Canada - Atlantique
#3 Claudelle
Jul 28, 1979
18 UTC
15 kts
#2 Bob
Jul 13, 1979
00 UTC
25 kts
#4 David
Sep 6, 1979
00 UTC
40 kts
#6 Frederic
Sep 14, 1979
06 UTC
35 kts
#9 Subtrop 1
Oct 24, 1979
06 UTC
40 kts

1980's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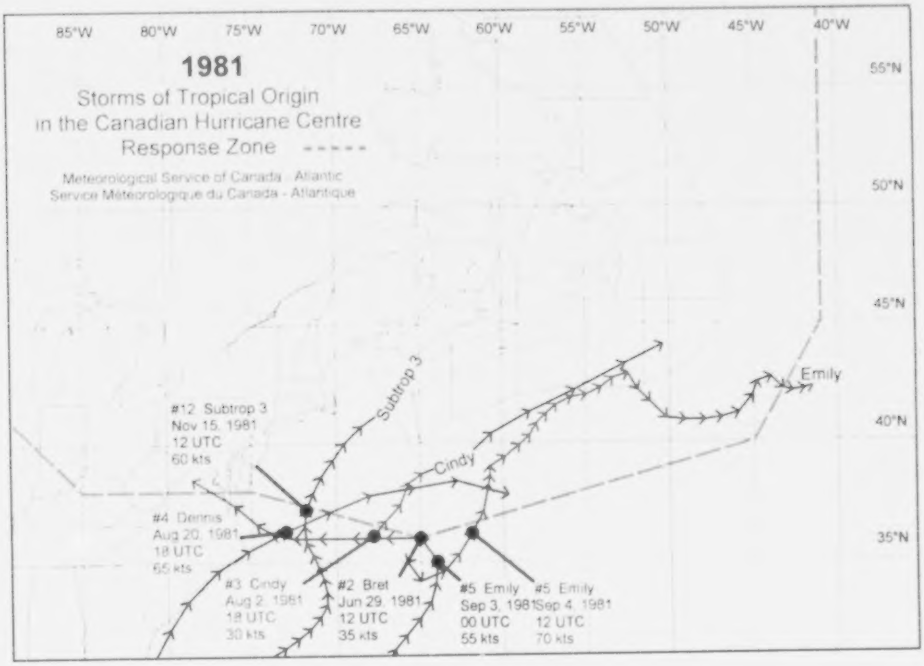
45°W
40°W
55°N
50°N
45°N
40°N
35°N
1980
Storms of Tropical Origin
in the Canadian Hurricane Centre
Response Zone
Meteorological Service of Canada - Atlantic
Service Météorologique du Canada - Atlantique
Georges
Frances
#6 Frances
Sep 18, 1980
12 UTC
80 kts
#7 Georges
Sep 7, 1980
06 UTC
45 kts
#3 Charley
Aug 22, 1980
00 UTC
45 kts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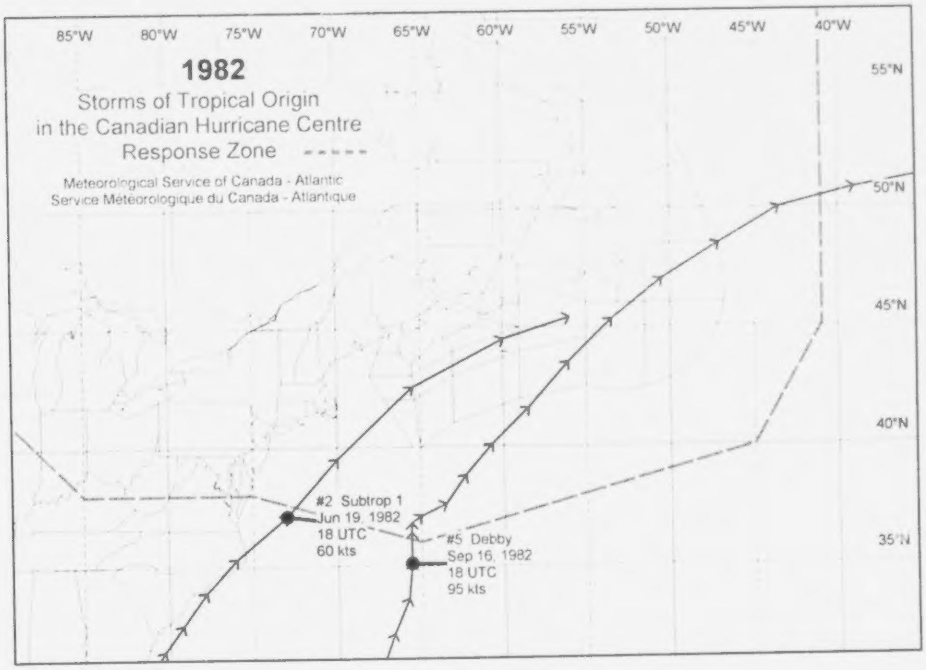
50°W
45°W
40°W
55°N
50°N
45°N
40°N
35°N
1981
Storms of Tropical Origin
in the Canadian Hurricane Centre
Response Zone
Meteorological Service of Canada - Atlantic
Service Météorologique du Canada - Atlantique
Subtrop 3
Emily
Cindy
#12 Subtrop 3
Nov 15, 1981
12 UTC
60 kts
#4 Dennis
Aug 20, 1981
18 UTC
65 kts
#3 Cindy
Aug 2, 1981
18 UTC
30 kts
#2 Bret
Jun 29, 1981
12 UTC
35 kts
#5 Emily
Sep 3, 1981
00 UTC
55 kts
#5 Emily
Sep 4, 1981
12 UTC
70 kts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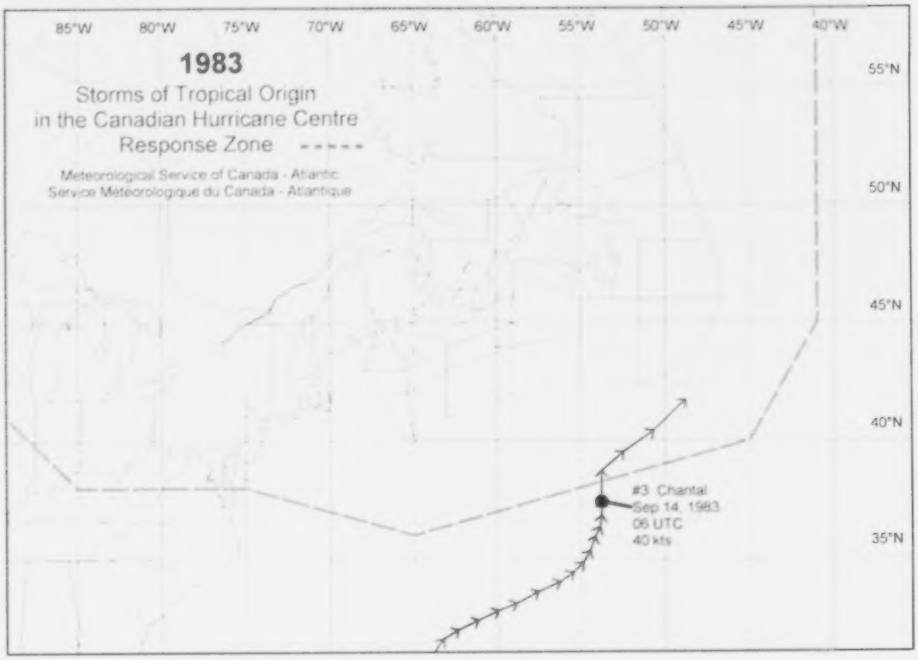
70°W
65°W
60°W
55°W
50°W
45°W
40°W
55°N
50°N
45°N
40°N
35°N
1982
Storms of Tropical Origin
in the Canadian Hurricane Centre
Response Zone
Meteorological Service of Canada - Atlantic
Service Météorologique du Canada - Atlantique
#2 Subtrop 1
Jun 19, 1982
18 UTC
60 kts
#5 Debby
Sep 16, 1982
18 UTC
95 kts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75°W
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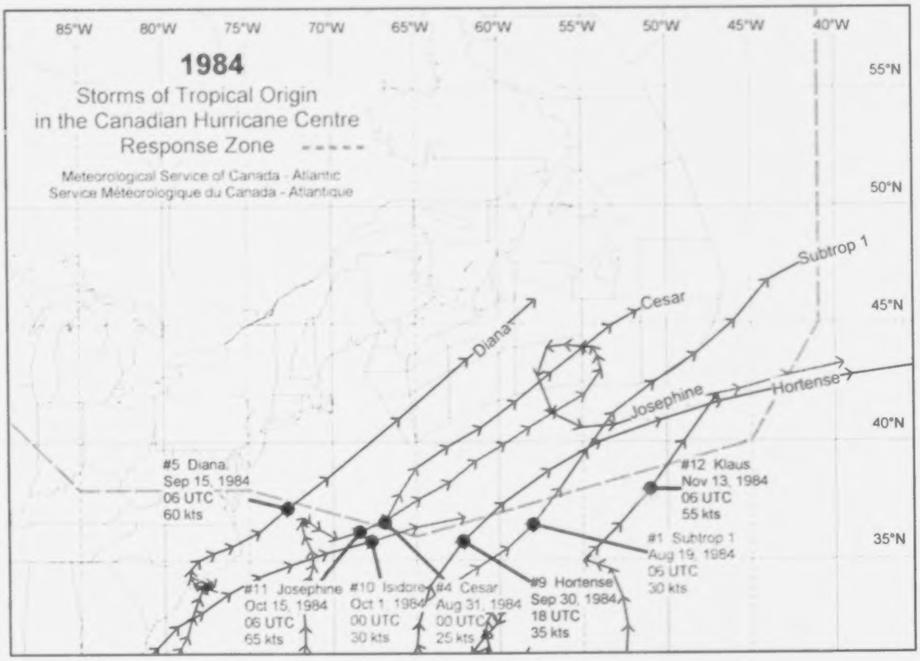
65°W
60°W
55°W
50°W
45°W
40°W
55°N
50°N
45°N
40°N
35°N
1983
Storms of Tropical Origin in the Canadian Hurricane Centre Response Zone
Meteorological Service of Canada - Atlantic
Service Météorologique du Canada - Atlantique
#3 Chantal
Sep 14, 1983
06 UTC
40 kts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75°W
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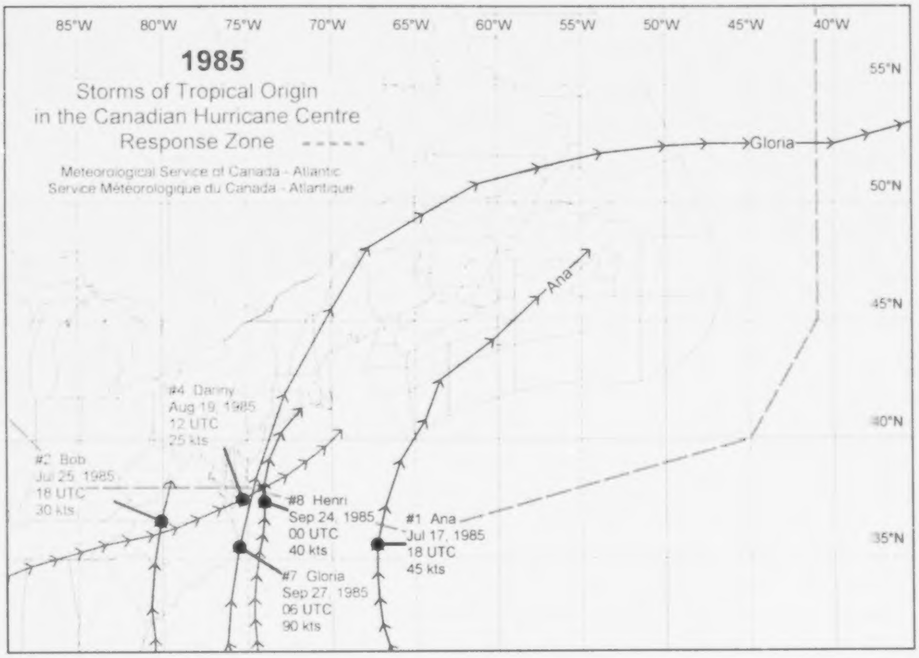
65°W
60°W
55°W
50°W
45°W
40°W
55°N
50°N
45°N
40°N
35°N
1984
Storms of Tropical Origin in the Canadian Hurricane Centre Response Zone
Meteorological Service of Canada - Atlantic
Service Météorologique du Canada - Atlantique
Subtrop 1
Cesar
Diana
Josephine
Hortense
#5 Diana
Sep 15, 1984
06 UTC
60 kts
#12 Klaus
Nov 13, 1984
06 UTC
55 kts
#1 Subtrop 1
Aug 19, 1984
06 UTC
30 kts
#11 Josephine
Oct 15, 1984
06 UTC
65 kts
#10 Isidore
Oct 1, 1984
00 UTC
30 kts
#4 Cesar
Aug 31, 1984
00 UTC
25 kts
#9 Hortense
Sep 30, 1984
18 UTC
35 kts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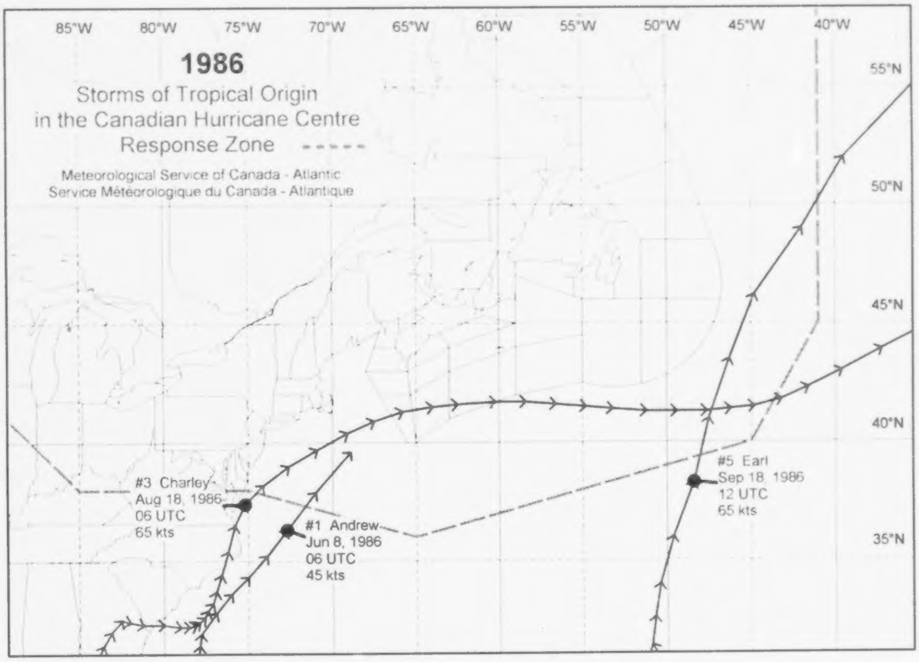
45°W
40°W
55°N
50°N
45°N
40°N
35°N
1985
Storms of Tropical Origin
in the Canadian Hurricane Centre
Response Zone
Meteorological Service of Canada - Atlantic
Service Météorologique du Canada - Atlantique
Gloria
Ana
#4 Danny
Aug 19, 1985
12 UTC
25 kts
#2 Bob
Jul 25, 1985
18 UTC
30 kts
#8 Henri
Sep 24, 1985
00 UTC
40 kts
#1 Ana
Jul 17, 1985
18 UTC
45 kts
#7 Gloria
Sep 27, 1985
06 UTC
90 kts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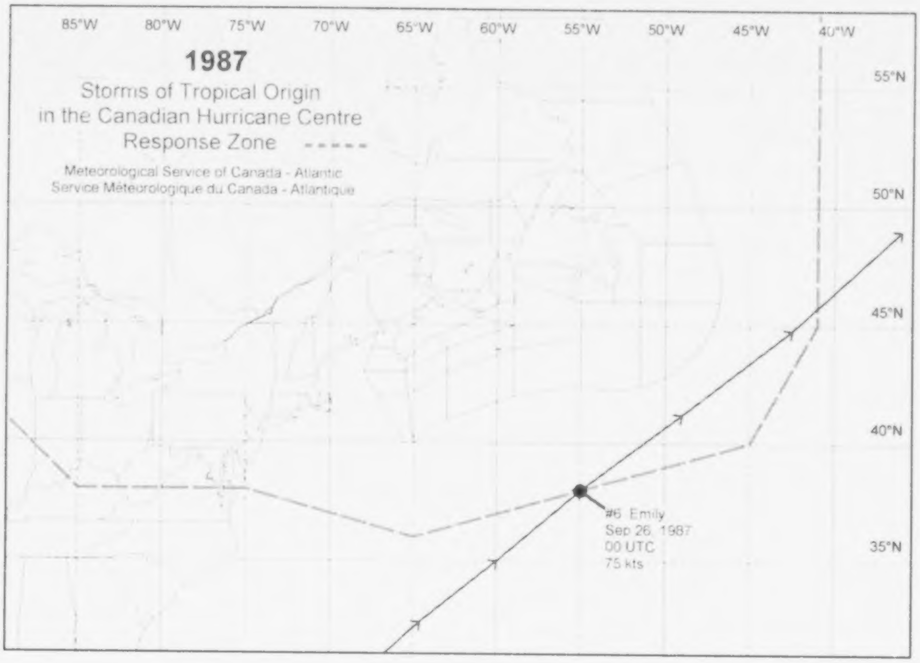
80°W
75°W
70°W
65°W
60°W
55°W
50°W
45°W
40°W
55°N
50°N
45°N
40°N
35°N
1986
Storms of Tropical Origin
in the Canadian Hurricane Centre
Response Zone
Meteorological Service of Canada - Atlantic
Service Météorologique du Canada - Atlantique
#3 Charley
Aug 18, 1986
06 UTC
65 kts
#1 Andrew
Jun 8, 1986
06 UTC
45 kts
#5 Earl
Sep 18, 1986
12 UTC
65 kts


85°W
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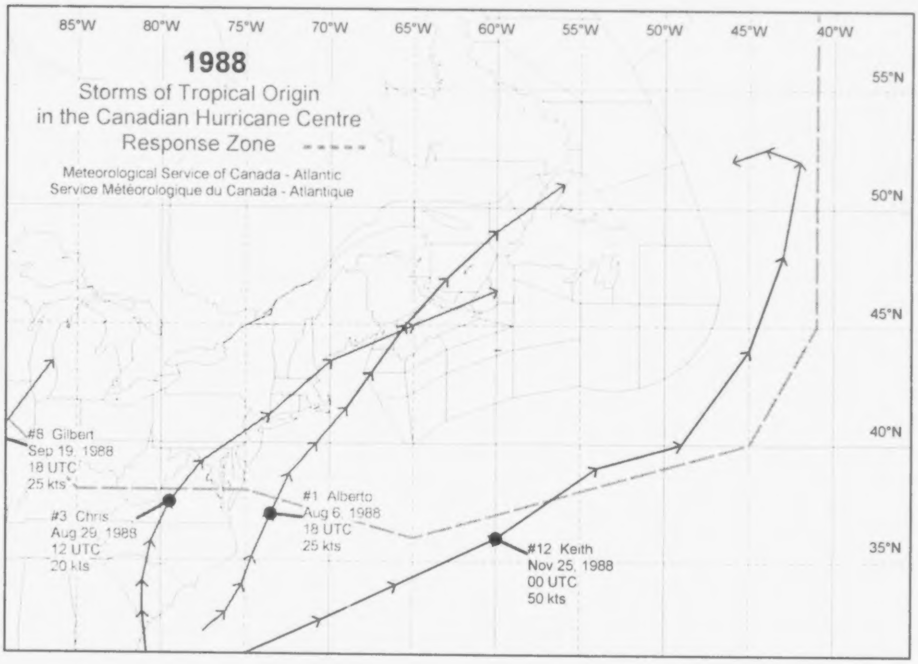
75°W
70°W
65°W
60°W
55°W
50°W
45°W
40°W
1987
Storms of Tropical Origin
in the Canadian Hurricane Centre
Response Zone - - - - -
Meteorological Service of Canada - Atlantic
Service Météorologique du Canada - Atlantique
55°N
50°N
45°N
40°N
35°N
#6 Emily
Sep 26, 1987
00 UTC
75 kts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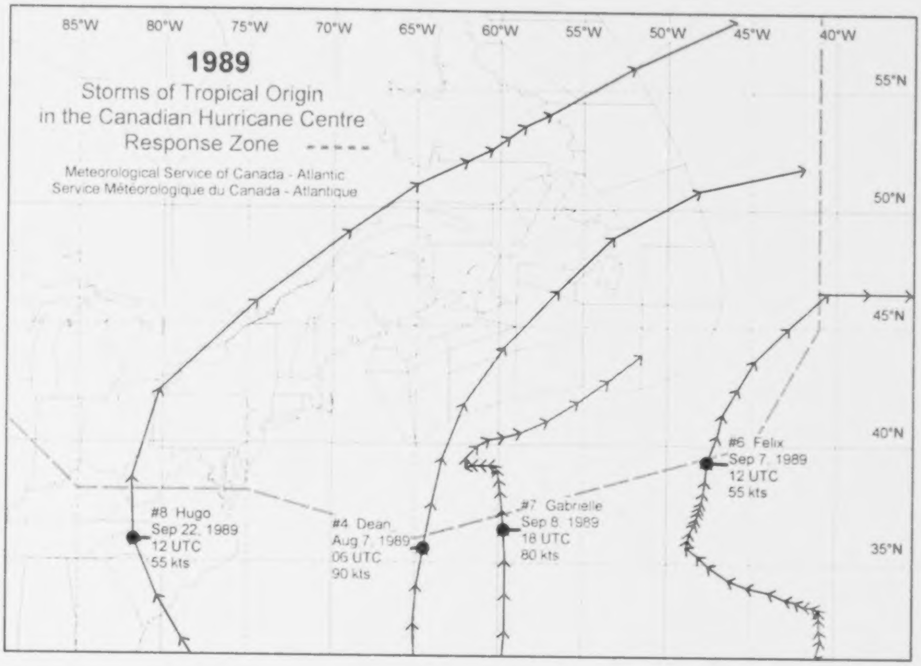
75°W
70°W
65°W
60°W
55°W
50°W
45°W
40°W
1988
Storms of Tropical Origin
in the Canadian Hurricane Centre
Response Zone - - - - -
Meteorological Service of Canada - Atlantic
Service Météorologique du Canada - Atlantique
55°N
50°N
45°N
40°N
35°N
#8 Gilbert
Sep 19, 1988
18 UTC
25 kts
#3 Chris
Aug 29, 1988
12 UTC
20 kts
#1 Alberto
Aug 6, 1988
18 UTC
25 kts
#12 Keith
Nov 25, 1988
00 UTC
50 kts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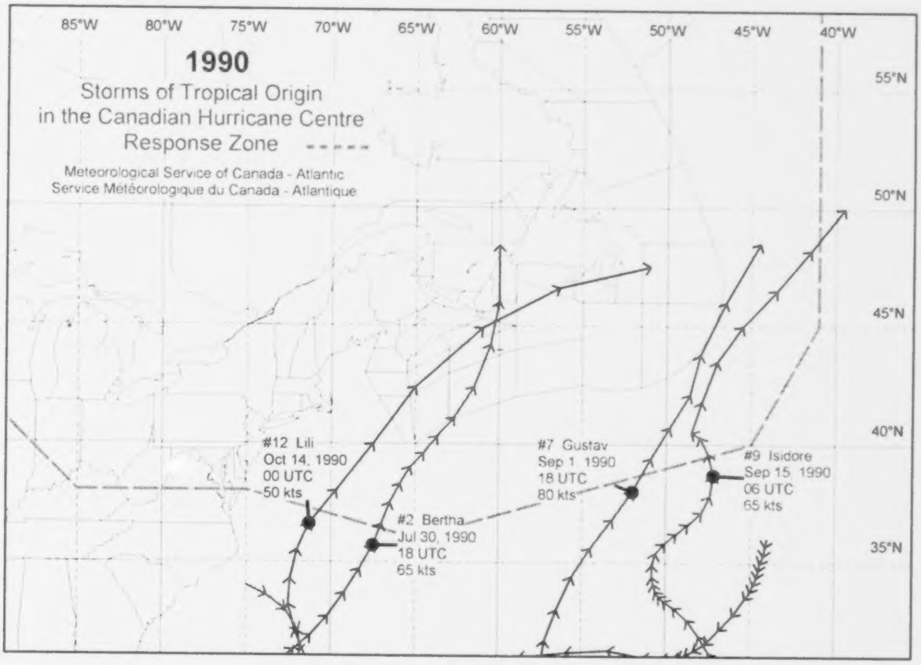
70°W
65°W
60°W
55°W
50°W
45°W
40°W
55°N
50°N
45°N
40°N
35°N
1989
Storms of Tropical Origin in the Canadian Hurricane Centre Response Zone
Meteorological Service of Canada - Atlantic
Service Météorologique du Canada - Atlantique
#8 Hugo Sep 22, 1989 12 UTC 55 kts
#4 Dean Aug 7, 1989 06 UTC 90 kts
#7 Gabrielle Sep 8, 1989 18 UTC 80 kts
#6 Felix Sep 7, 1989 12 UTC 55 kts

1990's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70°W
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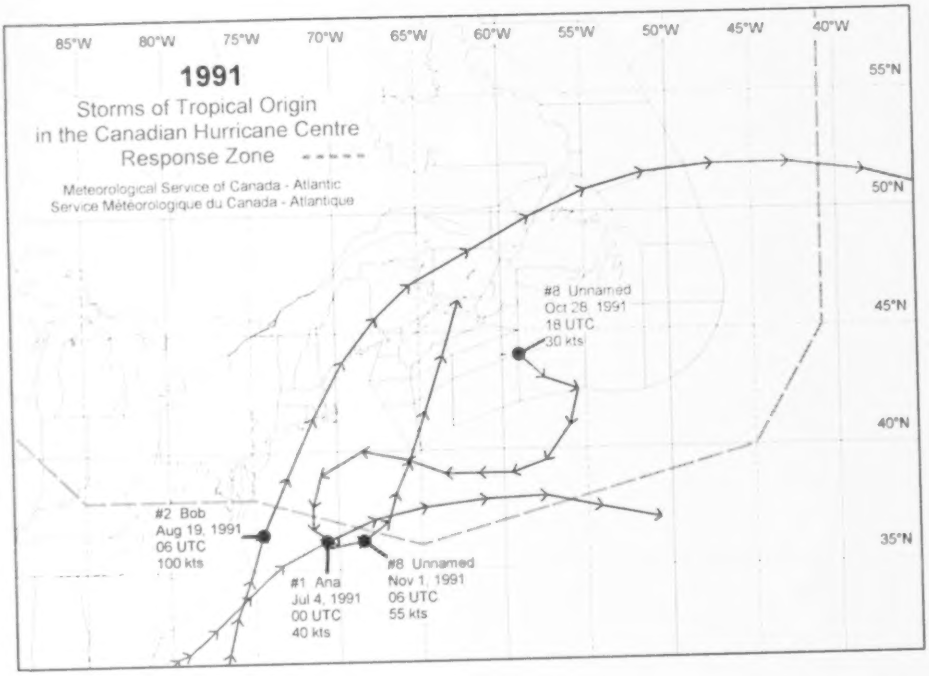
60°W
55°W
50°W
45°W
40°W
55°N
50°N
45°N
40°N
35°N
1990
Storms of Tropical Origin in the Canadian Hurricane Centre Response Zone
Meteorological Service of Canada - Atlantic
Service Météorologique du Canada - Atlantique
#12 Lili Oct 14, 1990 00 UTC 50 kts
#2 Bertha Jul 30, 1990 18 UTC 65 kts
#7 Gustav Sep 1, 1990 18 UTC 80 kts
#9 Isidore Sep 15, 1990 06 UTC 65 kts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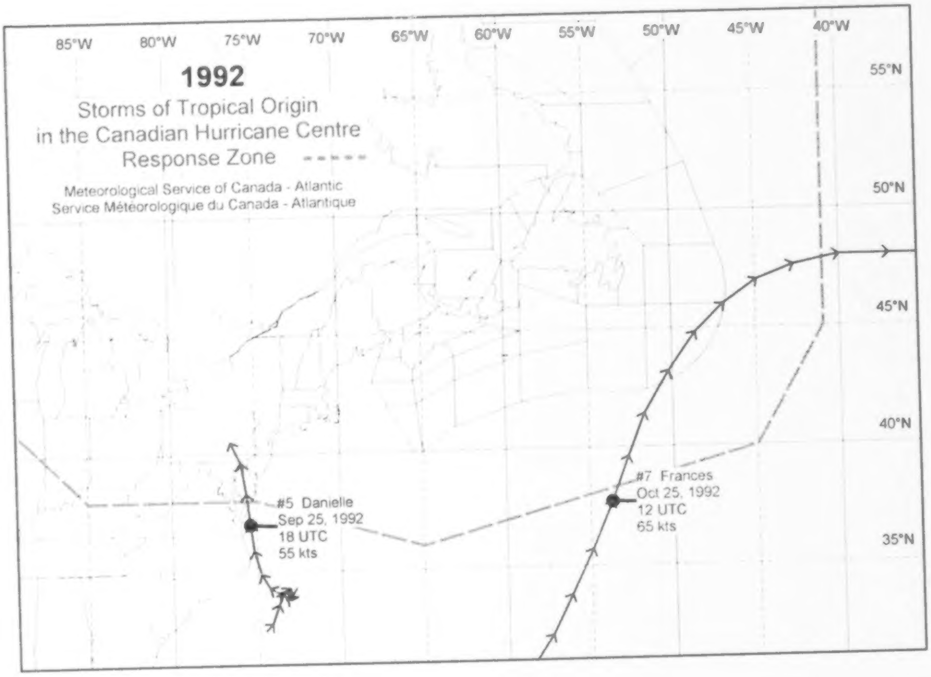
75°W
70°W
65°W
60°W
55°W
50°W
45°W
40°W
55°N
50°N
45°N
40°N
35°N
1991
Storms of Tropical Origin
in the Canadian Hurricane Centre
Response Zone
Meteorological Service of Canada - Atlantic
Service Météorologique du Canada - Atlantique
#8 Unnamed
Oct 28, 1991
18 UTC
30 kts
#2 Bob
Aug 19, 1991
06 UTC
100 kts
#1 Ana
Jul 4, 1991
00 UTC
40 kts
#8 Unnamed
Nov 1, 1991
06 UTC
55 kts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70°W
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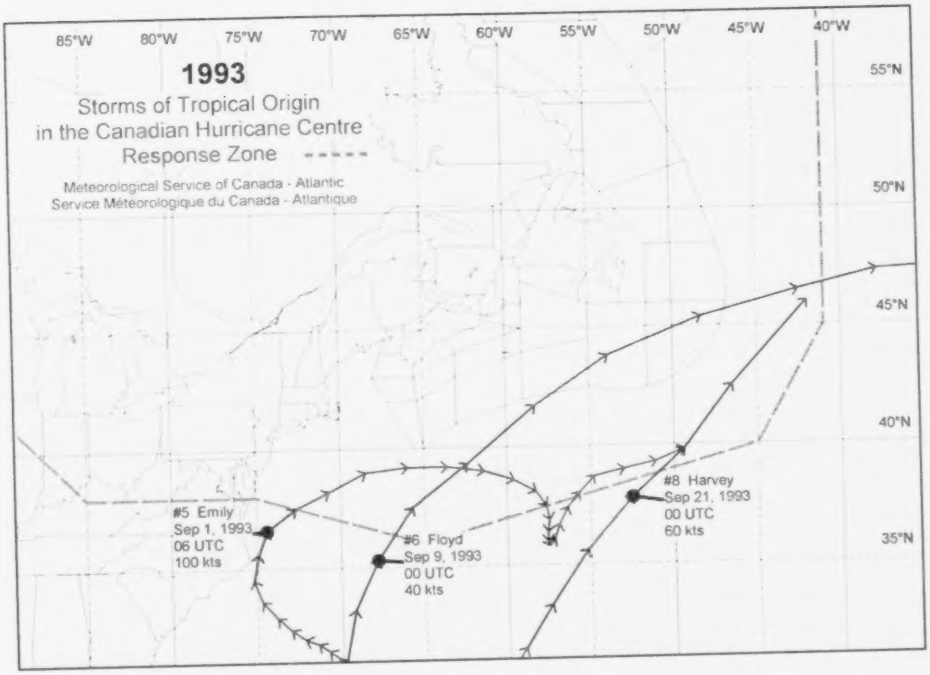
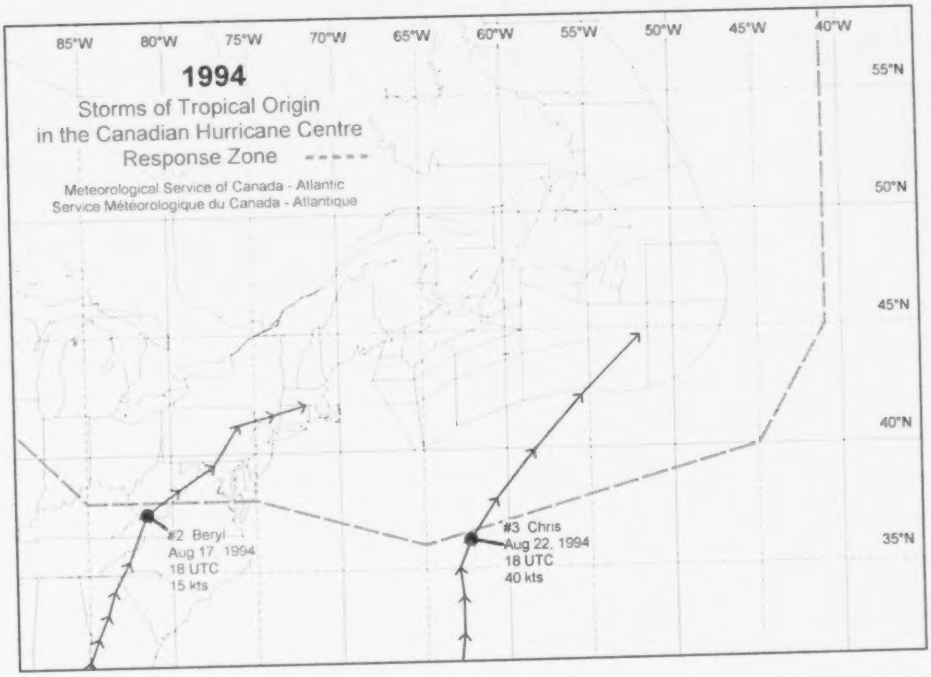
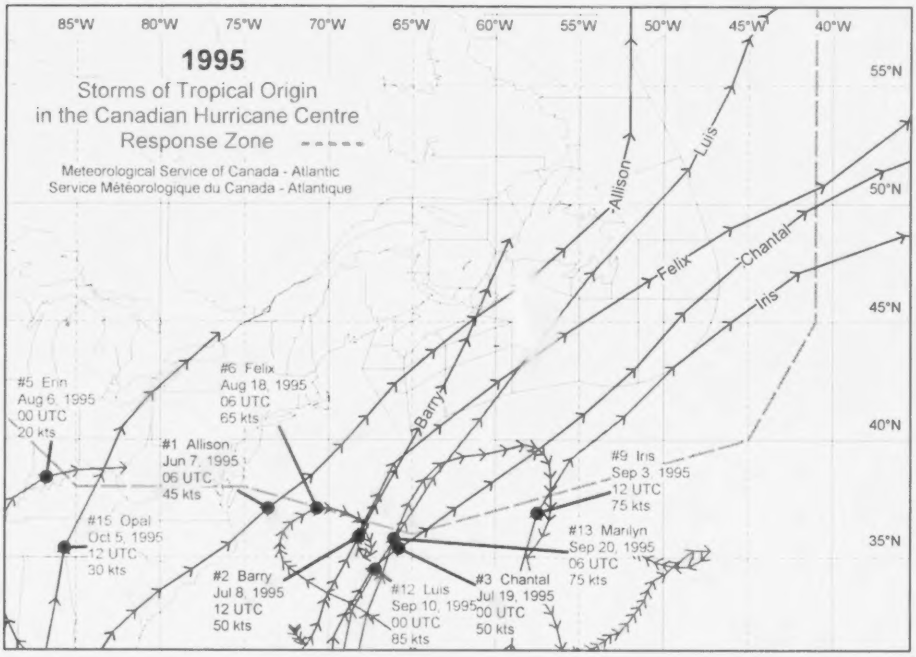
60°W
55°W
50°W
45°W
40°W
55°N
50°N
45°N
40°N
35°N
1992
Storms of Tropical Origin
in the Canadian Hurricane Centre
Response Zone
Meteorological Service of Canada - Atlantic
Service Météorologique du Canada - Atlantique
#5 Danielle
Sep 25, 1992
18 UTC
55 kts
#7 Frances
Oct 25, 1992
12 UTC
65 kts


1993
Storms of Tropical Origin
in the Canadian Hurricane Centre
Response Zone -----
Meteorological Service of Canada - Atlantic
Service Météorologique du Canada - Atlantique
85°W
80°W
75°W
70°W
65°W
60°W
55°W
50°W
45°W
40°W
55°N
50°N
45°N
40°N
35°N
#5 Emily
Sep 1, 1993
06 UTC
100 kts
#6 Floyd
Sep 9, 1993
00 UTC
40 kts
#8 Harvey
Sep 21, 1993
00 UTC
60 kts


1994
Storms of Tropical Origin
in the Canadian Hurricane Centre
Response Zone -----
Meteorological Service of Canada - Atlantic
Service Météorologique du Canada - Atlantique
85°W
80°W
75°W
70°W
65°W
60°W
55°W
50°W
45°W
40°W
55°N
50°N
45°N
40°N
35°N
#2 Beryl
Aug 17, 1994
18 UTC
15 kts
#3 Chris
Aug 22, 1994
18 UTC
40 kts


1995
Storms of Tropical Origin in the Canadian Hurricane Centre Response Zone
Meteorological Service of Canada - Atlantic
Service Météorologique du Canada - Atlantique
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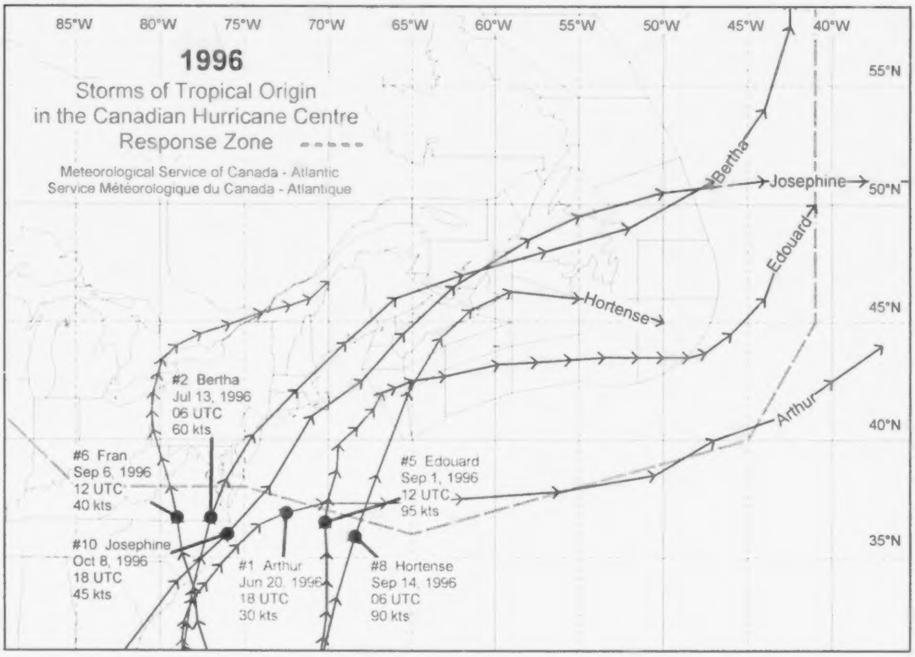
80°W
75°W
70°W
65°W
60°W
55°W
50°W
45°W
40°W
55°N
50°N
45°N
40°N
35°N
Allison
Luis
Felix
Chantal
Iris
Barry
#5 Erin Aug 6, 1995 00 UTC 20 kts
#6 Felix Aug 18, 1995 06 UTC 65 kts
#1 Allison Jun 7, 1995 06 UTC 45 kts
#15 Opal Oct 5, 1995 12 UTC 30 kts
#2 Barry Jul 8, 1995 12 UTC 50 kts
#12 Luis Sep 10, 1995 00 UTC 85 kts
#3 Chantal Jul 19, 1995 00 UTC 50 kts
#9 Iris Sep 3, 1995 12 UTC 75 kts
#13 Marilyn Sep 20, 1995 06 UTC 75 kts


1996
Storms of Tropical Origin in the Canadian Hurricane Centre Response Zone
Meteorological Service of Canada - Atlantic
Service Météorologique du Canada - Atlantique
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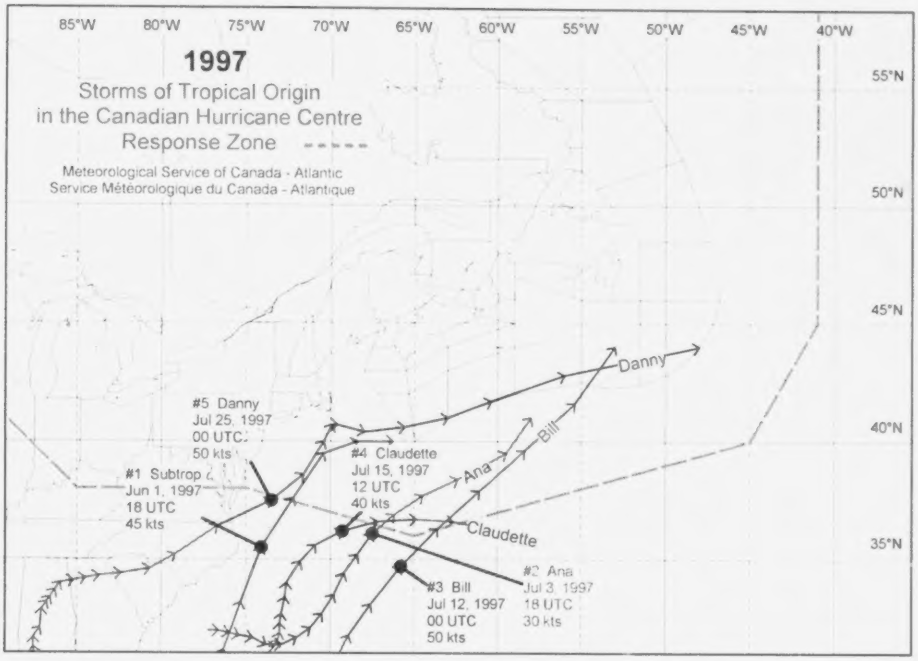
70°W
65°W
60°W
55°W
50°W
45°W
40°W
55°N
50°N
45°N
40°N
35°N
Bertha
Josephine
Edouard
Hortense
Arthur
#2 Bertha Jul 13, 1996 06 UTC 60 kts
#6 Fran Sep 6, 1996 12 UTC 40 kts
#5 Edouard Sep 1, 1996 12 UTC 95 kts
#10 Josephine Oct 8, 1996 18 UTC 45 kts
#1 Arthur Jun 20, 1996 18 UTC 30 kts
#8 Hortense Sep 14, 1996 06 UTC 90 kts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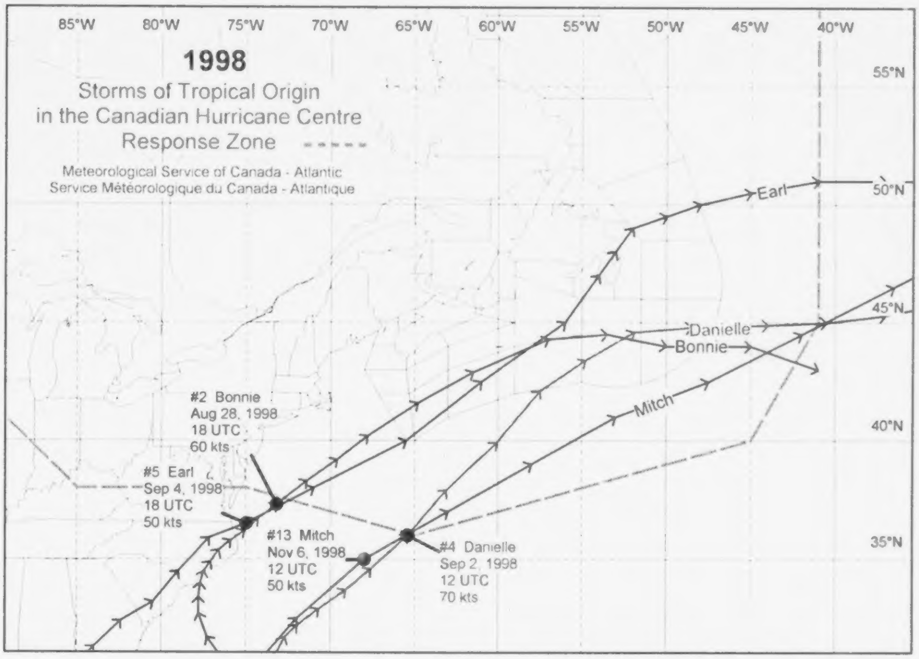
50°W
45°W
40°W
55°N
50°N
45°N
40°N
35°N
1997
Storms of Tropical Origin
in the Canadian Hurricane Centre
Response Zone
Meteorological Service of Canada - Atlantic
Service Météorologique du Canada - Atlantique
#5 Danny
Jul 25, 1997
00 UTC
50 kts
#1 Subtrop
Jun 1, 1997
18 UTC
45 kts
#4 Claudette
Jul 15, 1997
12 UTC
40 kts
#3 Bill
Jul 12, 1997
00 UTC
50 kts
#2 Ana
Jul 3, 1997
18 UTC
30 kts
Danny
Bill
Ana
Claudette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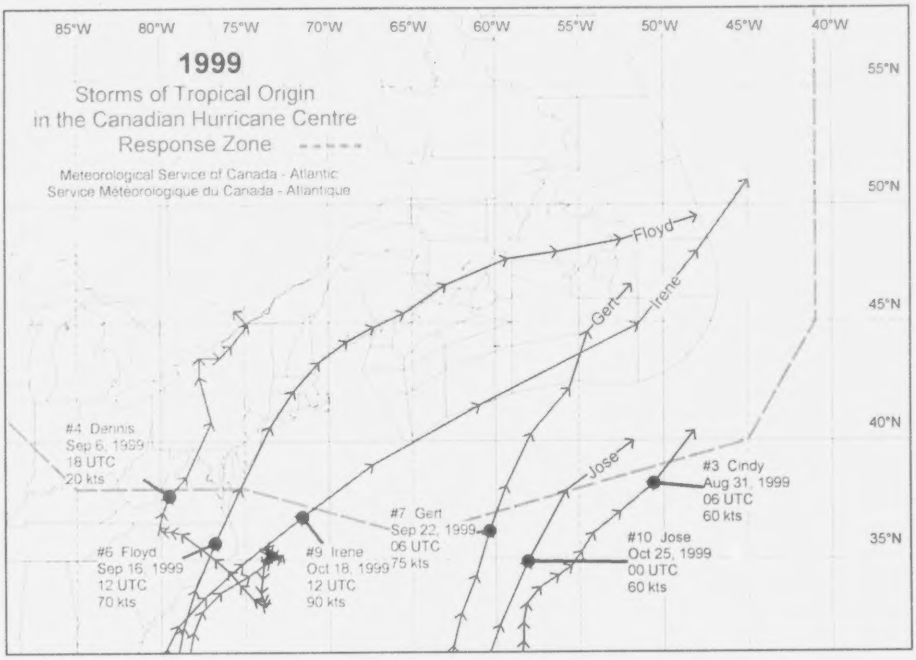
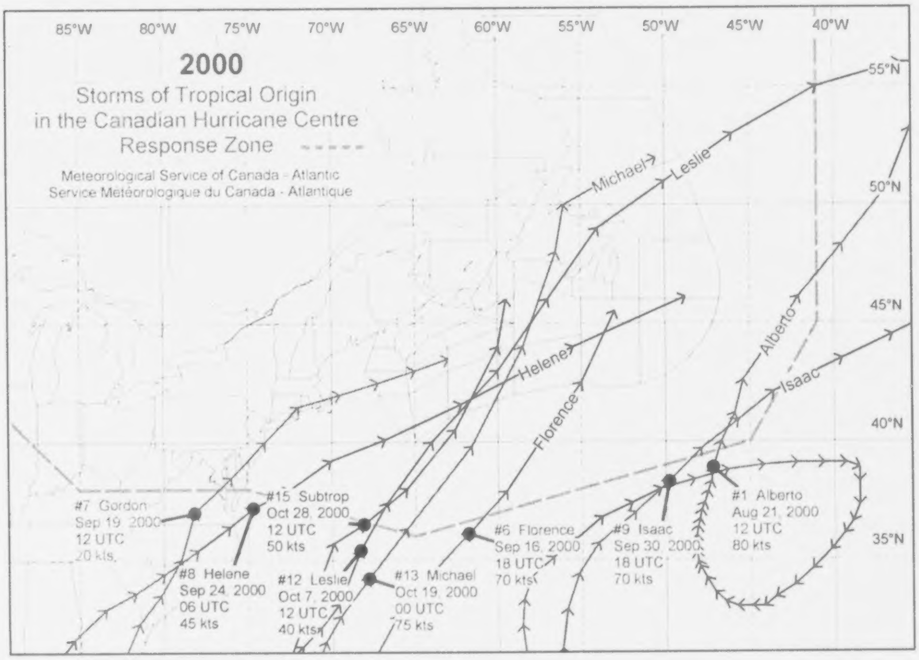
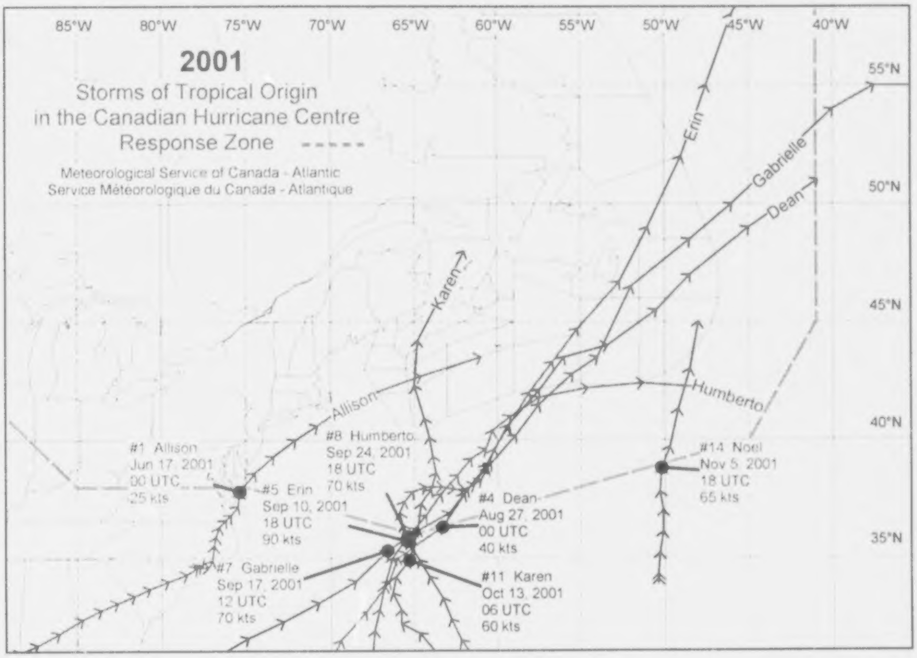
80°W
75°W
70°W
65°W
60°W
55°W
50°W
45°W
40°W
55°N
50°N
45°N
40°N
35°N
1998
Storms of Tropical Origin
in the Canadian Hurricane Centre
Response Zone
Meteorological Service of Canada - Atlantic
Service Météorologique du Canada - Atlantique
Earl
Danielle
Bonnie
Mitch
#2 Bonnie
Aug 28, 1998
18 UTC
60 kts
#5 Earl
Sep 4, 1998
18 UTC
50 kts
#13 Mitch
Nov 6, 1998
12 UTC
50 kts
#4 Danielle
Sep 2, 1998
12 UTC
70 kts


85°W
80°W
75°W
70°W
65°W
60°W
55°W
50°W
45°W
40°W
55°N
50°N
45°N
40°N
35°N
1999
Storms of Tropical Origin
in the Canadian Hurricane Centre
Response Zone
Meteorological Service of Canada - Atlantic
Service Météorologique du Canada - Atlantique
Floyd
Irene
Gert
Jose
#4 Dennis
Sep 6, 1999
18 UTC
20 kts
#6 Floyd
Sep 16, 1999
12 UTC
70 kts
#9 Irene
Oct 18, 1999
12 UTC
90 kts
#7 Gert
Sep 22, 1999
06 UTC
75 kts
#10 Jose
Oct 25, 1999
00 UTC
60 kts
#3 Cindy
Aug 31, 1999
06 UTC
60 kts

2000's


85°W
80°W
75°W
70°W
65°W
60°W
55°W
50°W
45°W
40°W
55°N
50°N
45°N
40°N
35°N
2000
Storms of Tropical Origin
in the Canadian Hurricane Centre
Response Zone
Meteorological Service of Canada - Atlantic
Service Météorologique du Canada - Atlantique
Michael
Leslie
Helene
Florence
Alberto
Isaac
#7 Gordon
Sep 19, 2000
12 UTC
20 kts
#15 Subtrop
Oct 28, 2000
12 UTC
50 kts
#8 Helene
Sep 24, 2000
06 UTC
45 kts
#12 Leslie
Oct 7, 2000
12 UTC
40 kts
#13 Michael
Oct 19, 2000
00 UTC
75 kts
#6 Florence
Sep 16, 2000
18 UTC
70 kts
#9 Isaac
Sep 30, 2000
18 UTC
70 kts
#1 Alberto
Aug 21, 2000
12 UTC
80 kts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2001
Storms of Tropical Origin
in the Canadian Hurricane Centre
Response Zone
Meteorological Service of Canada - Atlantic
Service Météorologique du Canada - Atlantique
Erin
Gabrielle
Dean
Karen
Allison
Humberto
#1 Allison
Jun 17, 2001
00 UTC
25 kts
#8 Humberto
Sep 24, 2001
18 UTC
70 kts
#5 Erin
Sep 10, 2001
18 UTC
90 kts
#4 Dean
Aug 27, 2001
00 UTC
40 kts
#14 Noel
Nov 5, 2001
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Oct 13, 2001
06 UTC
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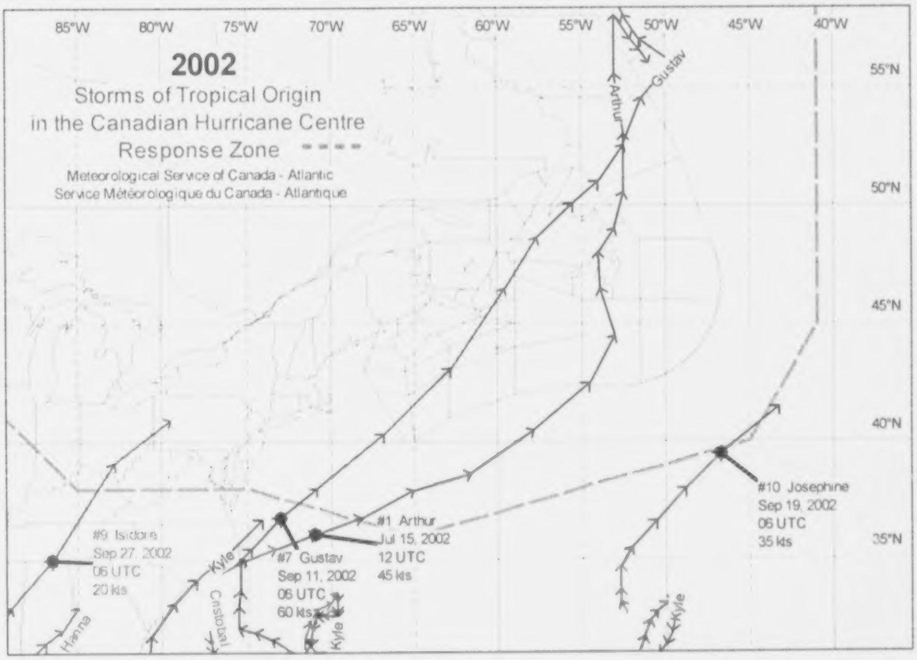
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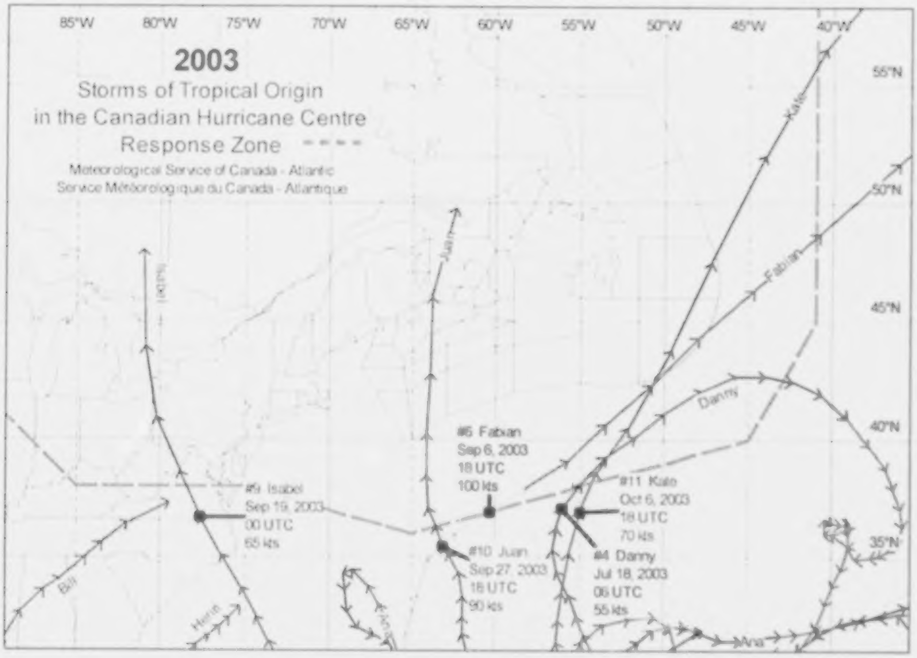
2002
Storms of Tropical Origin
in the Canadian Hurricane Centre
Response Zone
Meteorological Service of Canada - Atlantic
Service Météorologique du Canada - Atlantique
Arthur
Gustav
#10 Josephine
Sep 19, 2002
06 UTC
35 kts
#1 Arthur
Jul 15, 2002
12 UTC
45 kts
#9 Isidore
Sep 27, 2002
06 UTC
20 kts
#7 Gustav
Sep 11, 2002
06 UTC
60 kts
Kyle
Cristobal
Hanna
Kyle
Kyle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2003
Storms of Tropical Origin
in the Canadian Hurricane Centre
Response Zone
Meteorological Service of Canada - Atlantic
Service Météorologique du Canada - Atlantique
Isabel
Juan
Kate
Fabian
Danny
Bill
Henri
Ana
#6 Fabian
Sep 6, 2003
18 UTC
100 kts
#9 Isabel
Sep 19, 2003
00 UTC
65 kts
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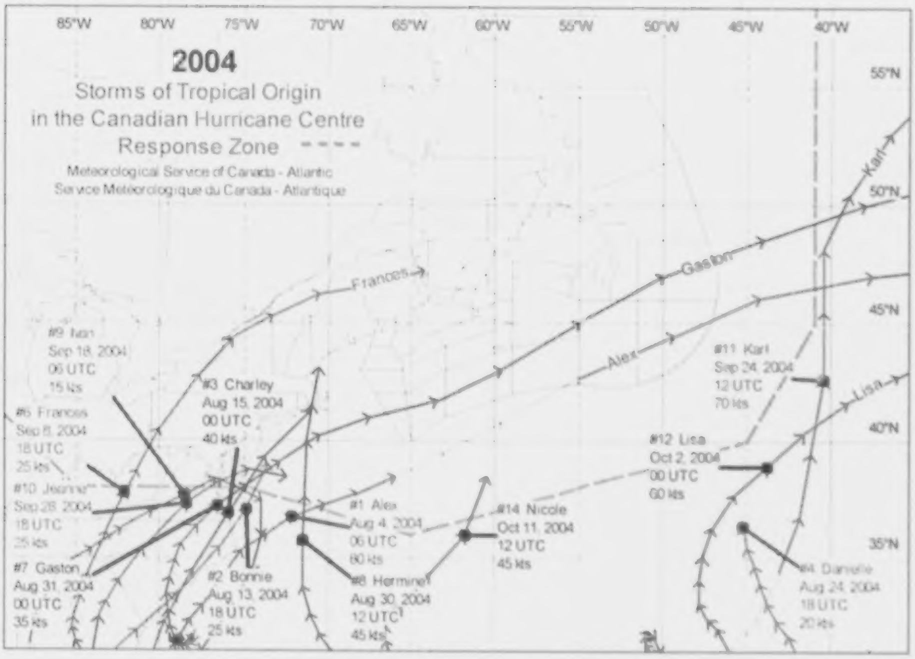
70 kts
#10 Juan
Sep 27, 2003
18 UTC
90 kts
#4 Danny
Jul 18, 2003
06 UTC
55 kts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2004
Storms of Tropical Origin
in the Canadian Hurricane Centre
Response Zone
Meteorological Service of Canada - Atlantic
Service Météorologique du Canada - Atlantique
Karl
Gaston
Frances
Alex
Lisa
#9 Ivan
Sep 18, 2004
06 UTC
15 kts
#3 Charley
Aug 15, 2004
00 UTC
40 kts
#6 Frances
Sep 8, 2004
18 UTC
25 kts
#10 Jeanne
Sep 28, 2004
18 UTC
25 kts
#7 Gaston
Aug 31, 2004
00 UTC
35 kts
#2 Bonnie
Aug 13, 2004
18 UTC
25 kts
#1 Alex
Aug 4, 2004
06 UTC
80 kts
#8 Hermine
Aug 30, 2004
12 UTC
45 kts
#14 Nicole
Oct 11, 2004
12 UTC
45 kts
#11 Karl
Sep 24, 2004
12 UTC
70 kts
#12 Lisa
Oct 2, 2004
00 UTC
60 kts
#4 Danielle
Aug 24, 2004
18 UTC
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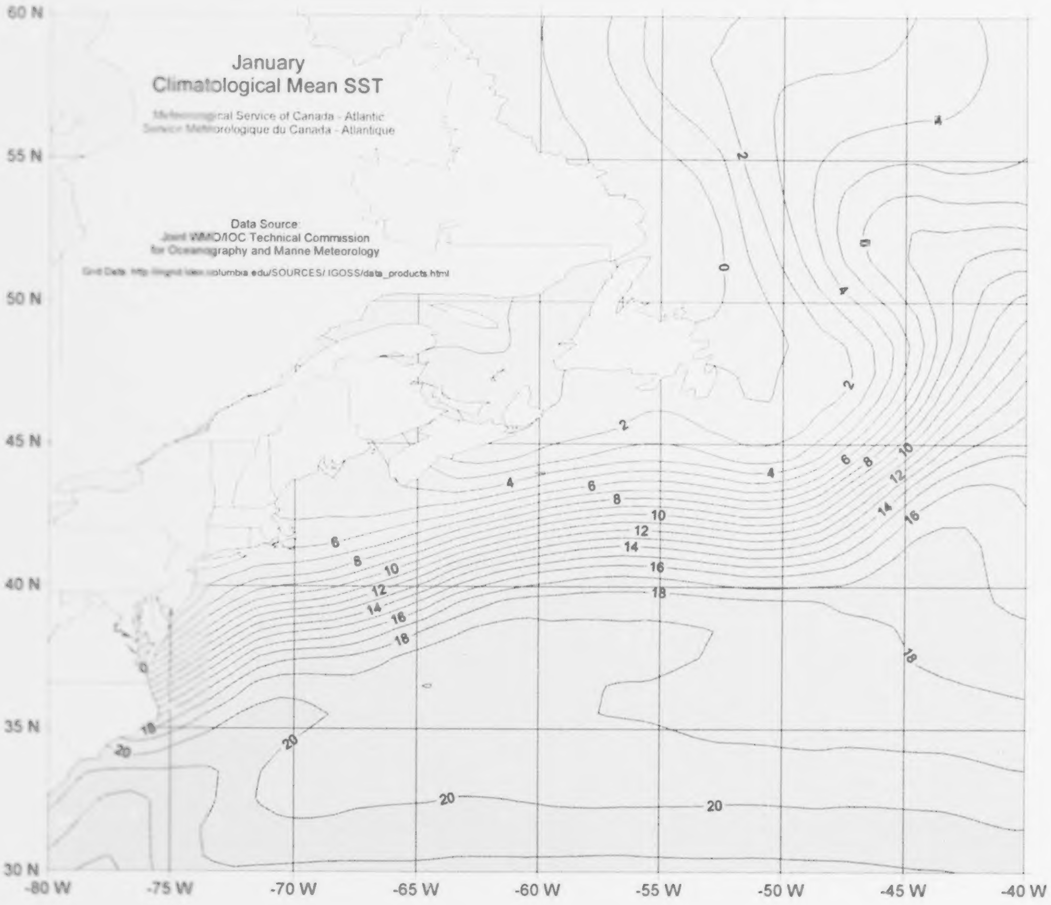
APPENDIX VI: SEA SURFACE TEMPERATURE MAPS - JAN TO DEC NORMALS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Joint WMO/IOC Technical Commission
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Grid Data: http://ingrid.ldeo.columbia.edu/SOURCES/ IGOSS/data_products.html
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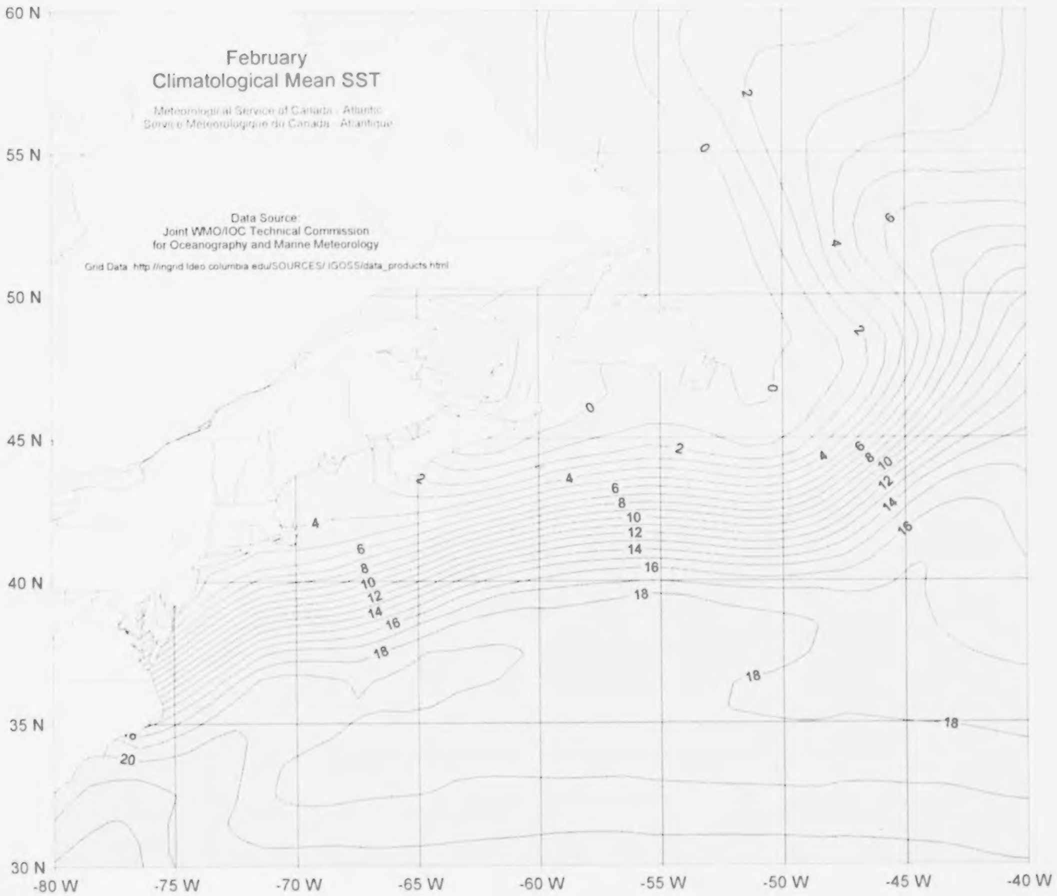
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February
Climatological Mean SST

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Service Météorologique du Canada - Atlantique

Data Source:
Joint WMO/IOC Technical Commission
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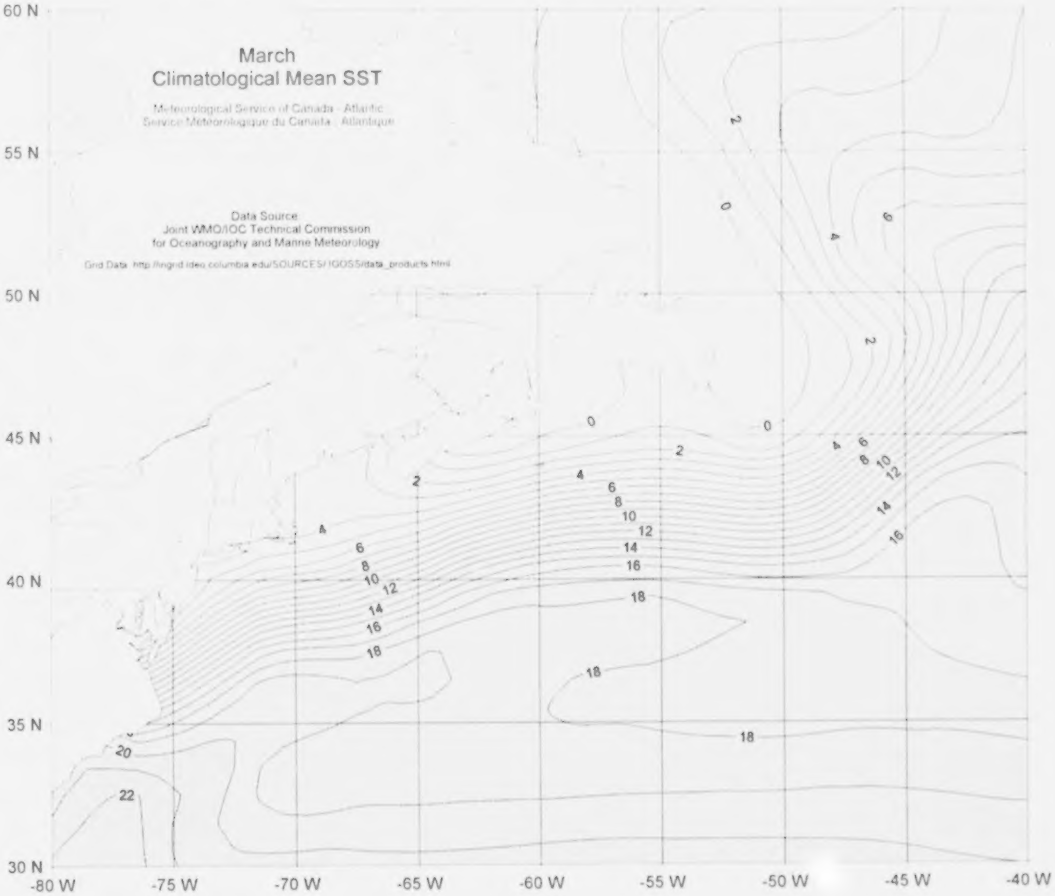
Grid Data: http://ingrid.ldeo.columbia.edu/SOURCES/.IGOSS/data_products.html



March
Climatological Mean SST

Meteorological Service of Canada - Atlantic
Service Météorologique du Canada - Atlantique

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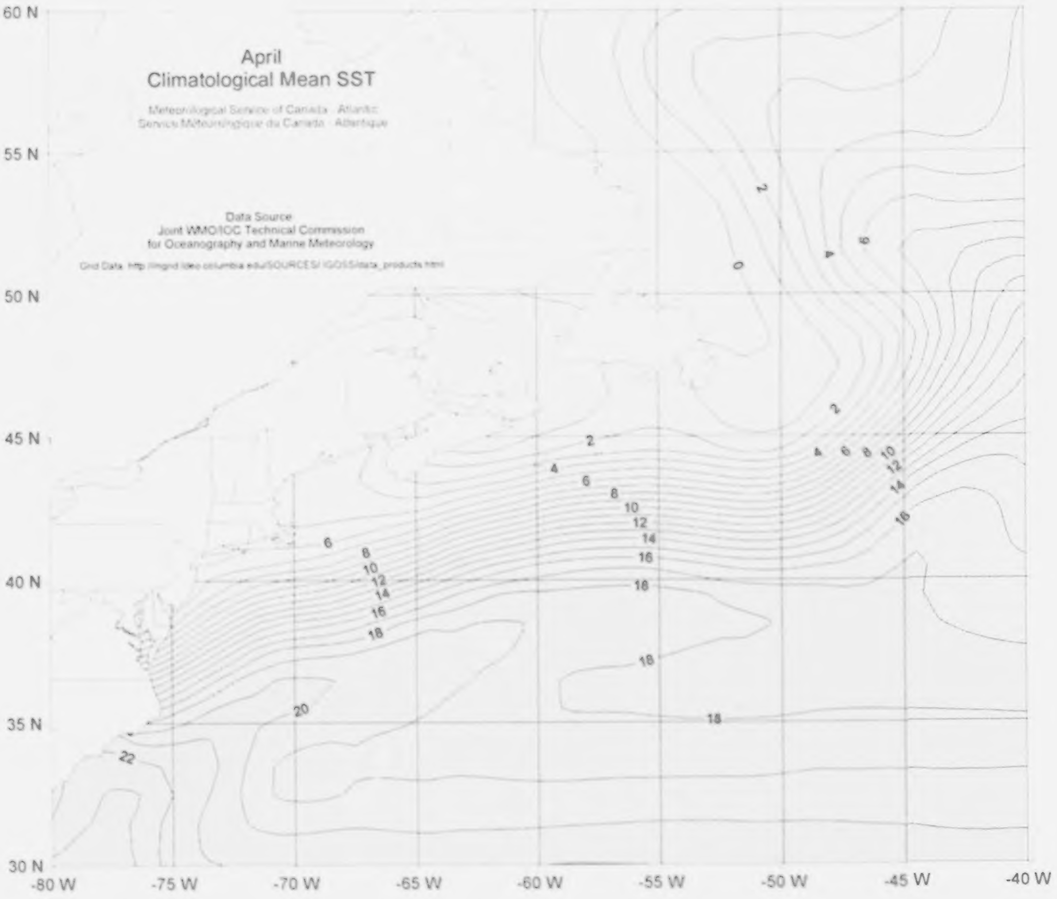

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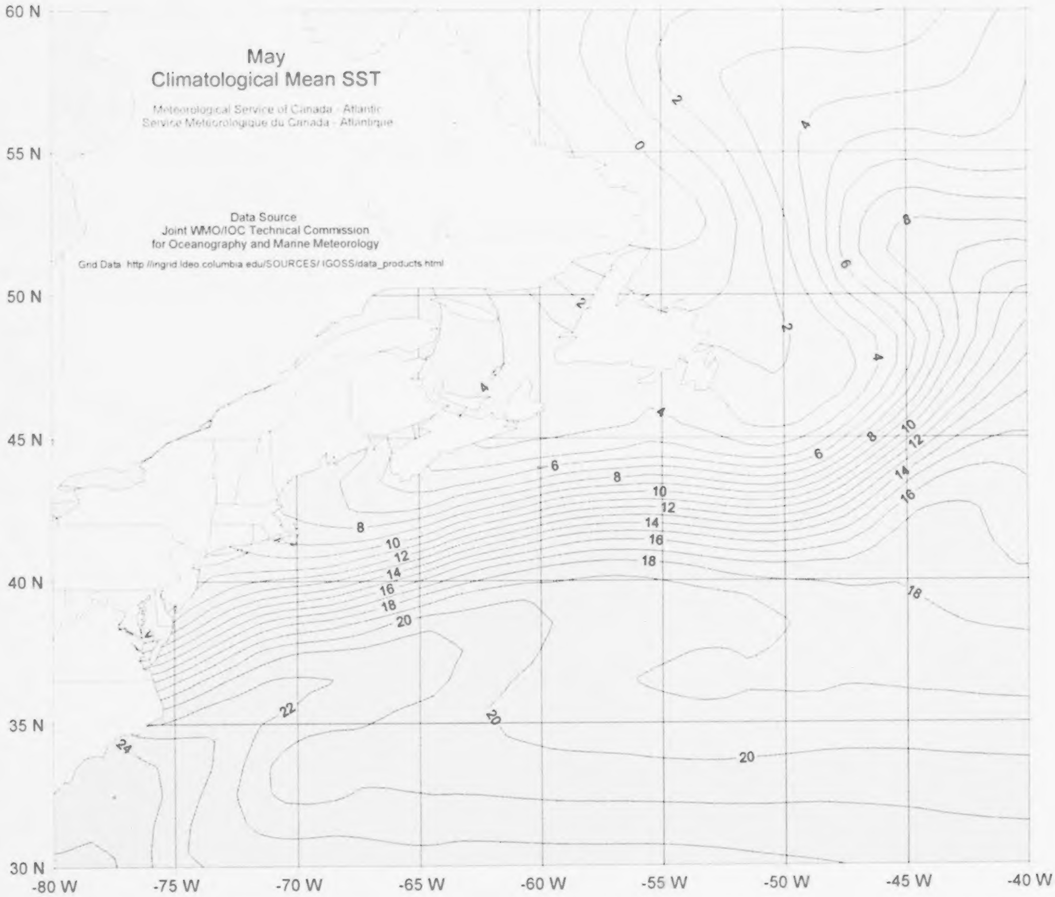

May
Climatological Mean SST

Meteorological Service of Canada - Atlantic
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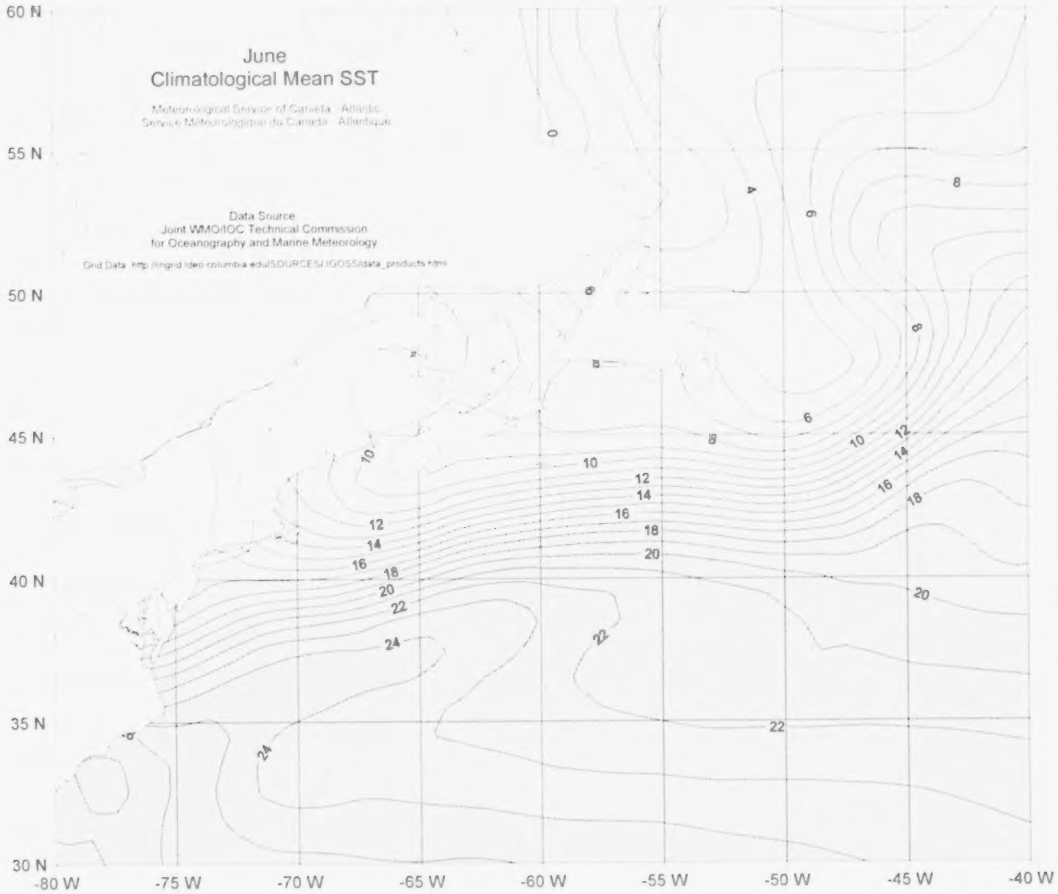
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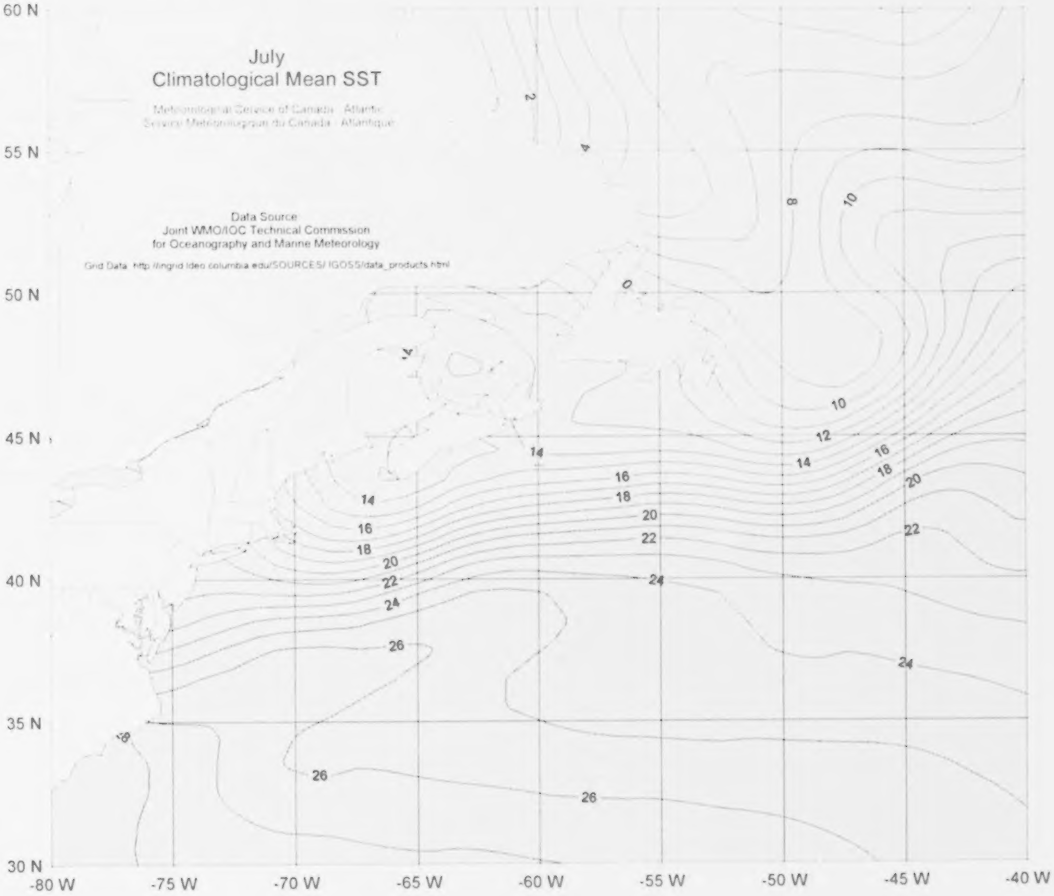
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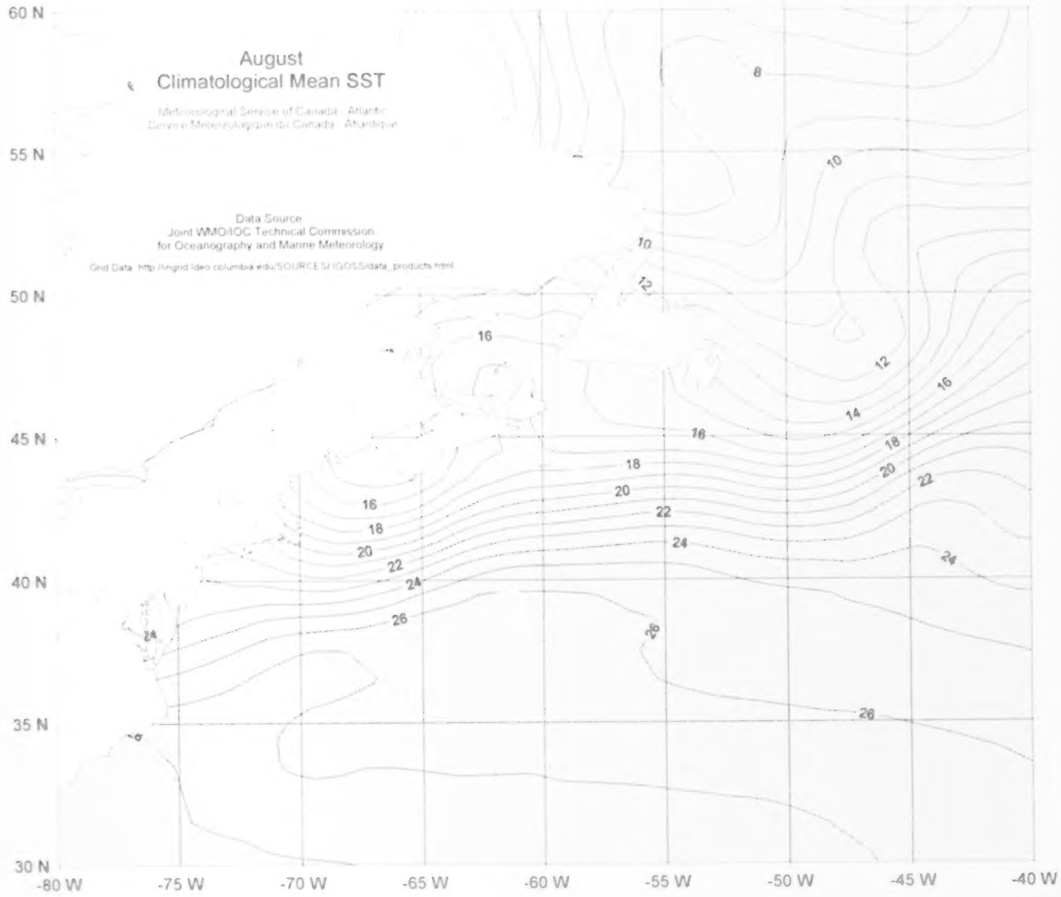

August
Climatological Mean SST

Meteorological Service of Canada - Atlantic
Service Météorologique du Canada - Atlantique

Data Source
Joint WMO/IOC Technical Commission
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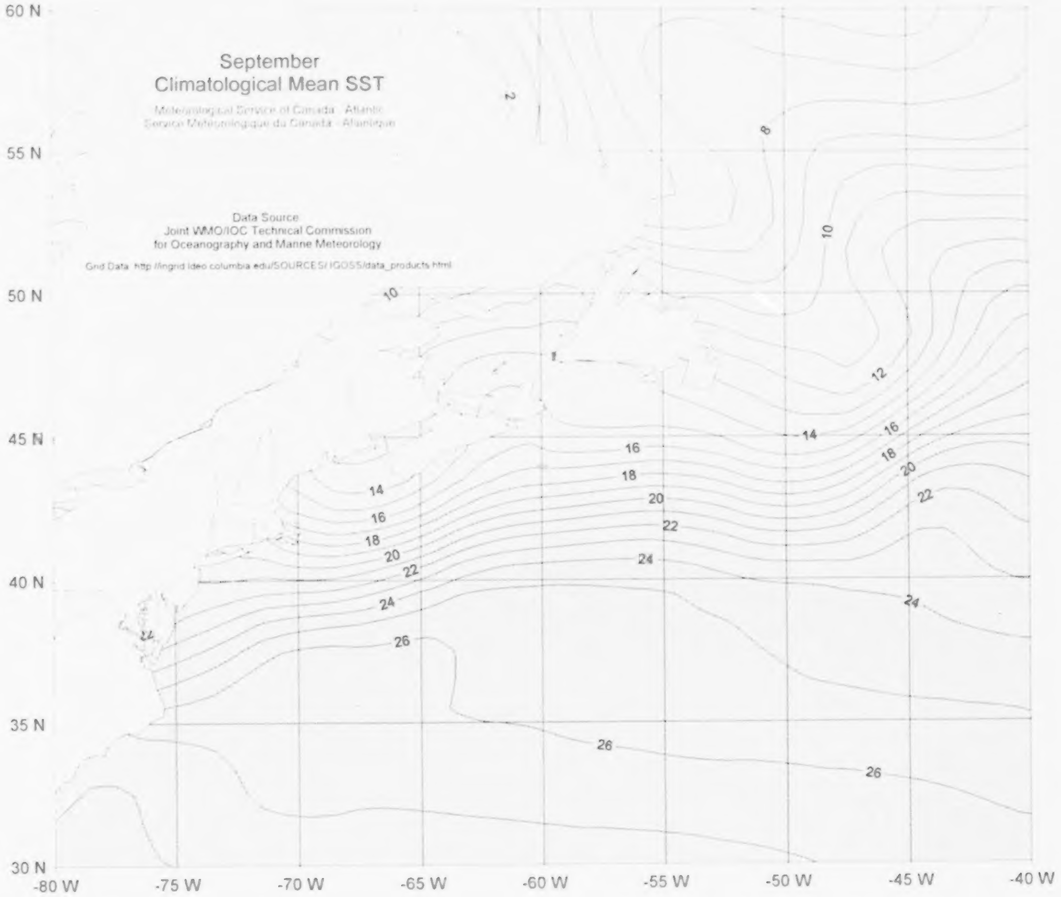

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Climatological Mean SST

Meteorological Service of Canada - Atlantic
Service Météorologique du Canada - Atlantique

Data Source
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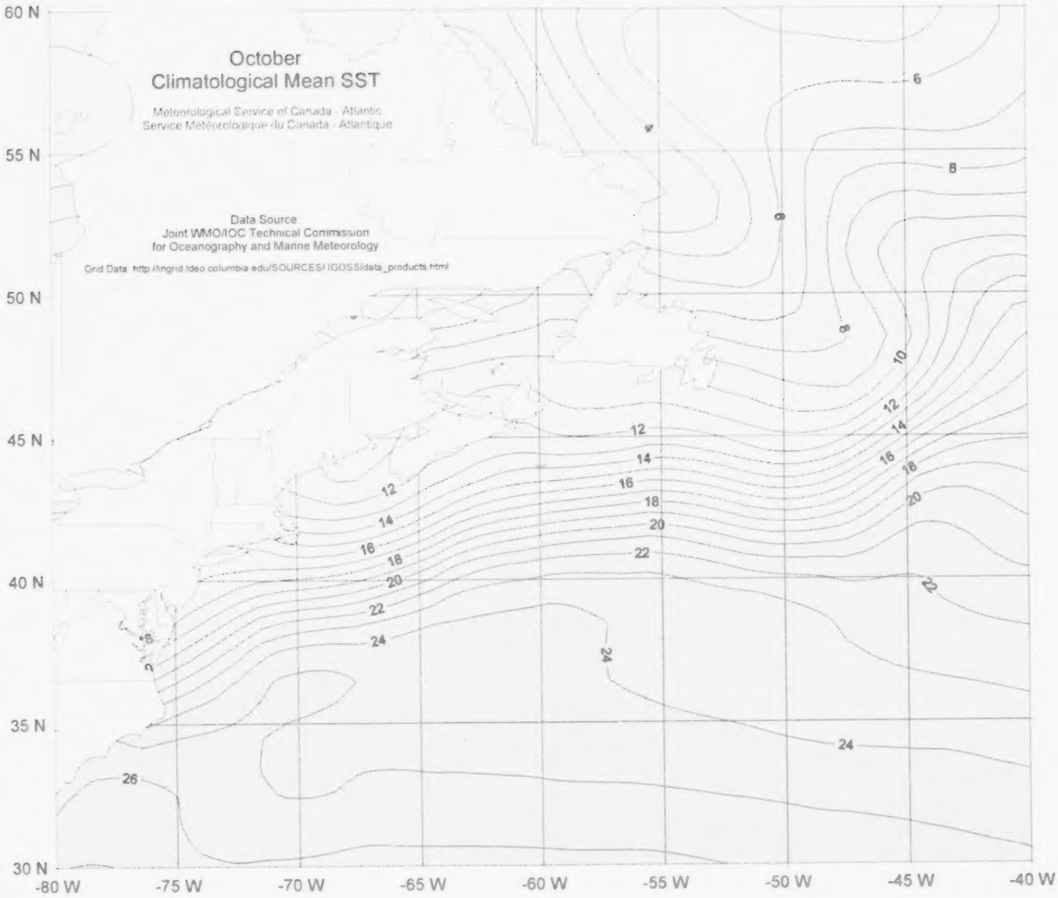
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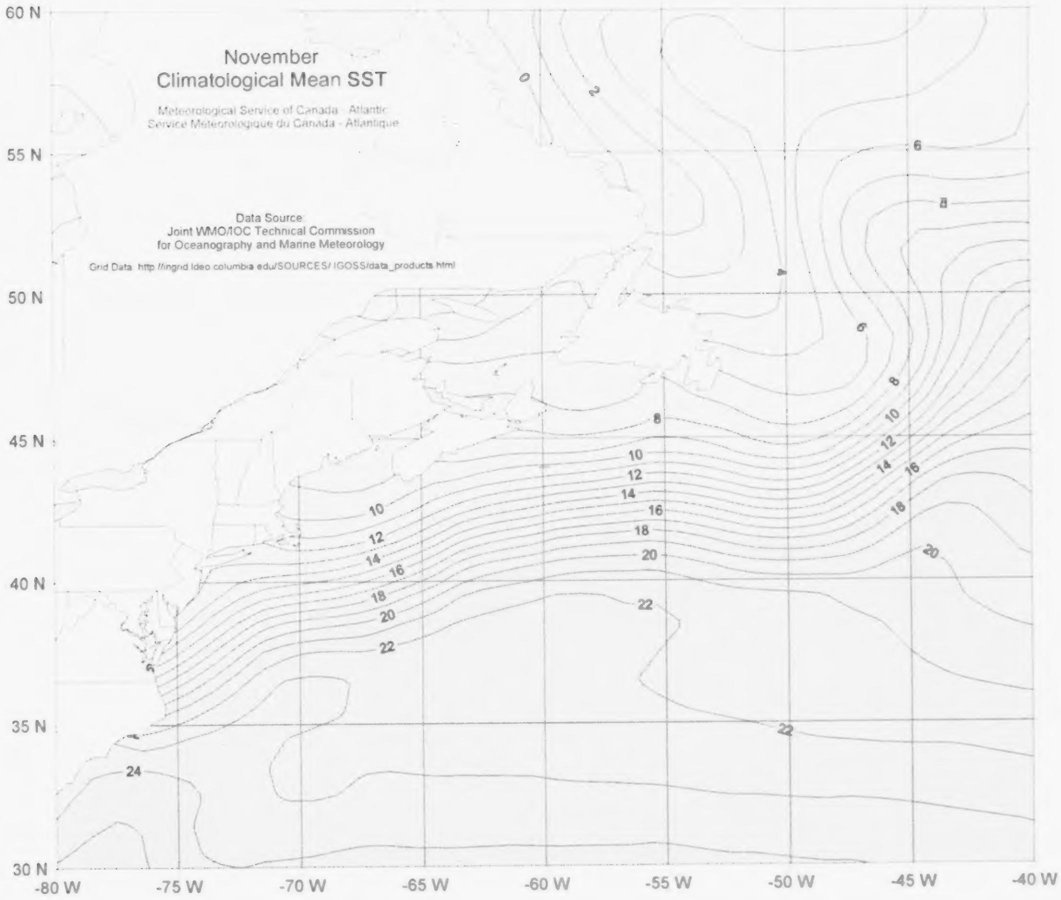
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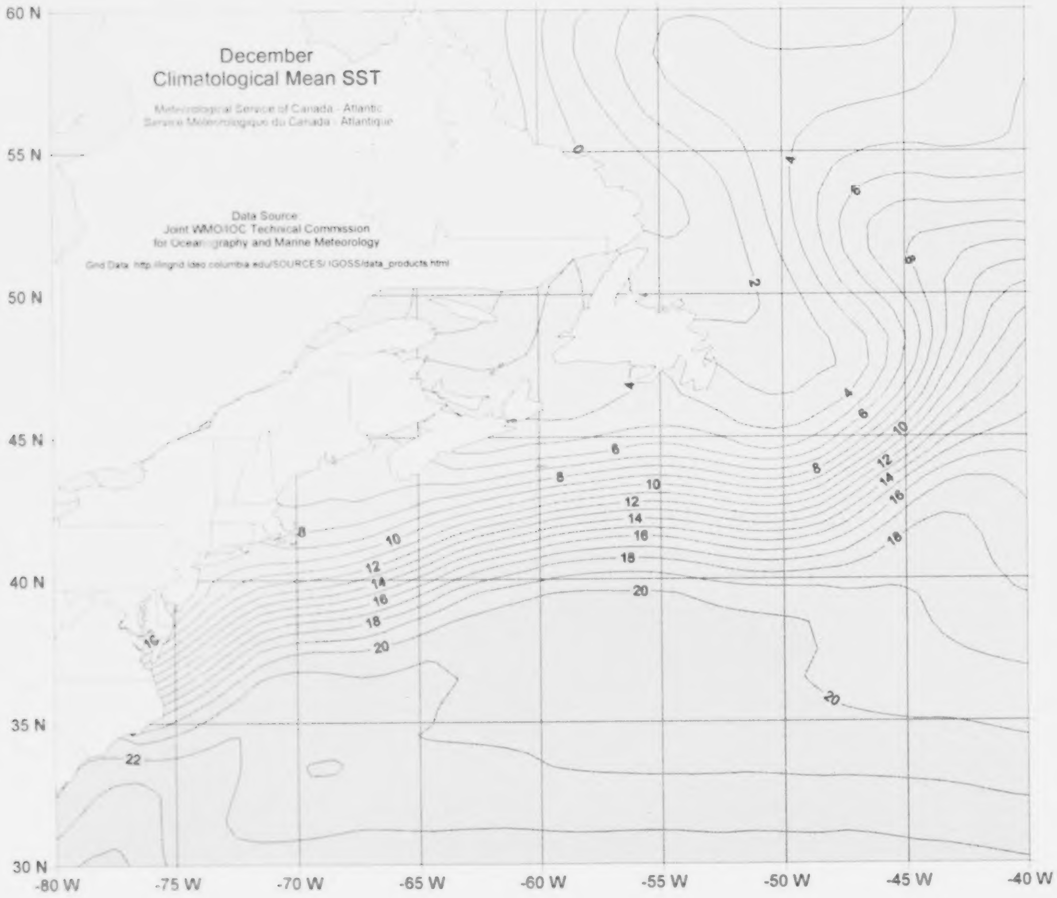
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APPENDIX VII: HURRICANES AND TROPICAL STORMS IN ATLANTIC CANADA (GALBRAITH)

HURRICANES AND TROPICAL STORMS IN ATLANTIC CANADA

A BRIEF REVIEW

by

Paul W. Galbraith

MAES 6/80
Scientific Services,
Atmospheric Environment Service
Fredericton, N.B.

Dartmouth Env. Can. Lib./Bib.
39 010 695

August 1980

Environment Canada | Environnement Canada | Meteorological Service of Canada (Atlantic) | Service Météorologique du Canada (Atlantique)

Hurricanes and Tropical Storms in Atlantic Canada - A Brief Review

P. W. Galbraith

Atmospheric Environment Service

1. INTRODUCTION

Hurricanes and tropical storms (or cyclones), although not a frequent forecasting problem in Atlantic Canada, can cause considerable public concern if not widespread damages on those rare occasions when they do pass through the region. The very infrequency of their occurrence, combined with normal forecasting staff turnover, results in some forecasters and briefers having had limited experience in dealing with these types of storms in an operational environment. Although this brief review cannot substitute for "hands on" experience it is hoped that it may prove useful as an introduction to the topic.

Hurricanes and tropical storms originate at tropical and subtropical latitudes. They usually reach their maximum intensity well to the south of Atlantic Canada and most of the literature on these types of storms concentrates on their characteristics during the development and mature stages at these southern latitudes. However, those storms which do move to the north to affect Atlantic Canada usually lose their true tropical character north of about 40°N. This can be called the decaying stage of the storm at which time the major energy input is shifting from latent heat to baroclinic sources of energy. Also during this stage there are characteristic changes in, for example, the wind and precipitation fields around the storms. The literature available on this stage in the life cycle of these storms is sparse. The following is gleaned from readily available sources at Atlantic Regional Library and the Maritimes Weather Office.

2. STORM TYPES

In Table 1 the definitive characteristics of tropical and subtropical cyclones are compared. These are taken from the National Hurricane Operational Plan (NHOP)[26].

Tropical Cyclones	**Subtropical Cyclones**
Develop over tropical* or subtropical** waters	Develop over Subtropics
Synoptic Scale	Can be mesoscale
Non-frontal	May have an initial baroclinic circulation
Always have a warm core	May have a cold core and may change from cold to warm (hybrid)

Subclasses of Tropical Cyclones	**Subclasses of Subtropical Cyclones**
Depression (mean wind ≤ 33 kt / 61 km/h)	Depression (mean wind ≤ 33 kt / 61 km/h)
Storm (mean wind 34-63 kt / 63-117 km/h)	Storm (mean wind 34-63 kt / 63-117 km/h)
Hurricane (mean wind ≥ 64kt / 118 k/h)	"Neutercane" 9 (mean wind ≥ 64kt / 118 km/h)

Table 1: Characteristics and Subclasses of Tropical and Subtropical Cyclones.
* South of 23° 27'N
** Ill defined zone approximately 24°N to 35°N.

The subtropical class of cyclones are, in general, less important than the tropical cyclones from the point of view of wide spread damages and danger to the public. They tend to be smaller in size and less frequent in occurrence. However, they have been given more attention in recent years. Due to their size they can go undetected until impacting on land or a fishing vessel, oil rig etc. The strong winds and lack of warning time can be a destructive combination.

The term "neutercane", although popular in the early 1970's to describe intense storms of a hybrid nature intermediate to hurricanes and frontal cyclones, appears to be less frequently used today. Nevertheless it is informative to review some of the references on this type of storm [2, 34].

There are a few documented cases of hybrid type storms affecting the Atlantic Region. For example, an unnamed storm on August 7th, 1971 brought hurricane force winds to the Grand Banks area. An oil rig 200 n. mi. southeast of Newfoundland reported gusts to 110 kt (at 325 ft. above sea level) with the passage of this storm. The radius of maximum winds was estimated to be on the order of 30 n.mi. consistent with wind profiles observed in hurricanes. However, the air was warmer than the sea surface temperature and the oil rig reported dense fog and no precipitation at the time of passage of the storm. This indicates that the storm was not driven by conventional hurricane energy sources. Another example occurred August 5th and 6th , 1979.

The structure of these hybrid storms has not been extensively investigated but they are known to differ markedly from tropical storms as well as amongst themselves. For example, maximum winds in the cold low type may be 3°-7° latitude removed from the circulation centre.

"Mini-hurricane" is another term that has been used to describe storms where, for example, the gale radius does not extend beyond 60 n.mi. These may easily elude the surface observational network and are most likely to be first detected on satellite imagery.

There is little written in the literature to aid in forecasting the behaviour of these subtropical storms. From this point, we will refer to tropical cyclones (meaning of storm or hurricane strength) and will assume that, for many practical purposes, the subtropical type storms behave in a similiar way. Since they draw on different energy sources, there may be significant differences in their behaviour when moving over colder waters.

3. FREQUENCY OF OCCURRENCE

Dunn and Miller in their book Atlantic Hurricanes [7] summarized the data from 1887-1955 on frequency of tropical cyclones in the-North Atlantic Ocean. This reference is recommended reading for all forecasters interested in a detailed look at this as well as many other aspects of hurricanes.

Over the 69 years of data it was found that an average of 7.5 tropical cyclones, including 3.8 hurricanes, formed in the entire North Atlantic Ocean each year. Of these, only a fraction (perhaps one-third) will pass near the marine or inland areas of the Maritime Provinces or Newfoundland. Thus, on average, perhaps two or three tropical cycbnes per year will affect (or threaten to affect) some part of the region. There have been years when the number of cyclones was considerably higher than this. For example, in 1933 there were 30* tropical cyclones that formed in the North Atlantic of which 9** reached hurricane strength. The year to year variation is greater than any possible longer period variation.

*** This appears to be an error in the original transcript. A check of the most recent HURDAT file (1851 to 2002 - http://www.nhc.noaa.gov/pastall.shtml) indicates 21 named storms in 1933.**

**** 10 hurricane strength storms are documented in the 1851 to 2002 HURDAT file.**

L. Ketch, Aug 2003

The monthly frequency statistics indicate that tropical cyclones can occur in the North Atlantic as early as June or as late as November. The most significant cyclone months, particularly for Atlantic Canada, are August, September and October, with a pronounced peak in early September on average.

4. FORECASTING THE MOVEMENT OF TROPICAL CYCLONES

4.1 General Patterns of Cyclone Movement

Tropical cyclones show a tendency to follow preferred tracks depending on the time of year and location. Dam and Miller have prepared charts showing the percentage frequency distributions of direction of motion as well as average speeds of motion for different months of the year. These charts extend only to 35°N and hence are of limited use in the Atlantic Region. Neverthelesss they are excellent indicators of average cyclone movement during the formative and mature stages of these storms.

Another useful reference for studying typical patterns of movement is the April issue of Monthly Weather Review which contains a summary of the tropical cyclone events during the previous year including a chart showing the tracks of all storms.

There is a definite tendency for early season cyclones (say June and July) to form further west, i.e. in the general area of the Gulf of Mexico and the Western Caribbean. These cyclones are fewer in number than the August to October storms and, in general, are less likely to reach Atlantic Canada while still maintaining their tropical characteristics.

The typical tracks of storms that affect Atlantic Canada begin on the south side of the Bermuda-Azores high pressure ridge in the broad area from Florida southeast to the Cape Verde Islands. Movement of these storms is first in a generally easterly to northeasterly direction (under the influence of the tropical easterly winds). Speeds of motion at this stage are slow (on the order of 10 kt) and erratic.

Recurvature is said to take place when the motion of the cyclone changes from westward and poleward to eastward and poleward. In the case of storms that threaten the Atlantic Region, recurvature often takes place between Bermuda and the southeastern U.S. During recurvature, the cyclone is gradually coming under the influence of the mid latitude westerly winds. It is at this stage that the cyclones tend to exhibit the most erratic behaviour due to the weak and often changing flow aloft. It is fairly common for them to follow looping tracks or temporarily stall at this stage.

Acceleration usually occurs near or after the point of recurvature as the storm comes more under the influence of the stronger mid-latitude winds. This acceleration poses a real problem to forecasters in Atlantic Canada since it is typically during this stage that the storm will move into the Region. Since it is not particularly uncommon for storms to accelerate from (say) 10 kt to 40 kt (or even higher speeds) within a 24-hour period, the timing of weather forecasts and warnings can easily be in error by several hours if the acceleration is not anticipated.

4.2 Steering Principle

There have been various attempts to define and demonstrate the effectiveness of a "steering current" that controls the motion of tropical cyclones. For example, Miller[7] suggested that the mean flow in the 500 mb to 200 mb layer integrated over a doughnut shaped ring extending from 2° to 6° radius from the centre was a good estimate of the effective air current aloft that controlled the motion of the storm.

An approximate value of the above current may be readily obtained through the geostrophic winds estimated at the 500 mb and 300 mb level. Upper wind observations in the vicinity of tropical cyclones are usually sparse and upper air analyses may lack sufficient detail. Reconnaissance flights made over the cyclone can provide important data in this regard.

It has been suggested that due to internal forces some hurricanes may move faster than the basic current flowing around them, However, in practice., this is not normally assumed.

It has been found that the steering principle will usually give reasonable results using only one level in the atmosphere if that level is at or near the level in the storm where the cyclonic circulation virtually disappears. This is sometimes called "high level steering" [7]. The appropriate level can range from about 500 mb in a weak tropical storm to as high as 100 mb in a large mature storm.

Once the steering level has been estimated, using available data, the cyclone centre is forecast to move with about 60 to 80 percent of the speed at that level. Up to the point of recurvature the centre usually moves about 10° to 20° to the right of the steering flow whereas after recurvature, the centre will most likely move to the left. That is, the centre always tends to move to the north of the steering current. Results from Tyner's study [37] suggest that in noncapturing situations the deviation is not likely to exceed 15 degrees from the 500 mb contours although this can be greatly exceeded just before capture by a cold low.

Meteorologists in the Atlantic Region have often considered the 300 mb charts to be most appropriate in the application of the steering principal. The 500 mb level analysis and prognosis are often utilized as convenient approximations. In fact, the Riehl-Haggard technique of forecasting hurricane movement [7] relies exclusively on the 500 mb contour gradients and although the technique has not been formally applied in this area its reported success in other areas does support the use of contour gradients at this level.

4.3 The Effect of Long and Shortwave Patterns on Cyclone Movement

Obviously the direction and speed of motion of a tropical cyclone will be affected by perturbations in the general flow around the storm. Following are some factors to consider:

(i) The most critical period for marked acceleration (including abrupt change in direction) occurs when a cyclone approaches a major trough in the westerlies. This is particularly true for those storms which recurve northward to affect our region. The most spectacular changes in cyclone movement occur when the long wave pattern is shifting rapidly.

(ii) A tropical cyclone will recurve well to the east of a slowly moving upper trough and will be steered by the winds ahead of the trough.

(iii) Tyner noted that strong acceleration and deepening is always preceeded by the presence of a southeastward moving pool of cold air in the Great Lakes area (i.e. a cold low) which is about to set up a strong southerly or southwesterly flow along the eastern seaboard of the U.S.

(iv) Shortwaves moving through a longwave trough position will temporarily increase the amplitude of the trough. In some cases, this may cause the trough to break through the subtropical ridge. A westward moving tropical cyclone south of the subtropical ridge may in this case be deflected to the north.

(v) If a tropical cyclone is moving under the influence of the mid-latitude westerlies, then a rapidly moving minor shortwave may bypass and hence only temporarily affect the track of the storm.

(vi) A hurricane will itself tend to build and extend a shortwave ridge in its forward right quadrant due to the high level out flow of warm air in that area. With a westward moving hurricane this effect may be enough to offset the effect of an approaching weak shortwave in the westerlies.

4.4 Numerical Forecasts

The operational numerical models (CMC SPECTRAL, LFM, etc.) used in mid-latitude forecasting do not handle tropical systems well in detail, particularly at the surface level. The scale of tropical cyclones is usually too small for the grid length of these models and furthermore, the physics of the storms is not well represented in the physics of the models. As a storm moves north and begins to take on characteristics of extra tropical cyclones, such as larger scale and increased energy input from baroclinic sources, it will normally tend to be handled better by the numerical models. It should be emphasized also that the upper level prognostic charts are always useful for estimating steering currents in the vicinity of the storms.

Specialized models for forecasting hurricane and tropical storm behaviour are run operationally at the National Hurricane Center (NHC) in Miami, Florida. These models are continually evolving and now give very good guidance for forecasting storm movement for at least 24 hours. The newer models are designed to run nested within the larger scale synoptic models such as the LFM.

5. NATIONAL HURRICANE CENTER ROLE

The NHC is the major centre of operational expertise and research on tropical cyclones in North America. As such, it is a primary source of information on the positions, movements and state of development of all tropical cyclones in the North Atlantic. This includes all tropical depressions, tropical storms, hurricanes and subtropical storms.

When a tropical depression reaches storm strength (mean wind greater than or equal to 34 kt) it is given a name from a pre-established alphabetically ordered list for the year. Subtropical cyclones, although uncommon, have also been given names Alpha, Bravo, etc.

In the bulletins issued by the NHC, cyclone positions are given at a specific initial time. These initial positions are based on at least one of the following: Satellite imagery, Surface observations, Radar information and Aircraft reconnaissance. In the case of a mature hurricane threatening the U.S. coast, it is likely that all sources of information will be used. Reconnaissance flights have perhaps been used more sparingly in recent years due to the expense involved and improved satellite imagery available.

Forecast positions of tropical cyclones for the next 48 hours are also provided in the bulletins. These are based on the aforementioned numerical models with a certain amount of subjective input.

Verification statistics are available and indicate how accurate the NHC positions are likely to be. For example, the mean error on initial position (1975) was 30 km while the mean error on the 24 hour forecast position uas 211 km. (It is possible that these errors would be larger if only cases were considered where the storms were north of (say) 40°N).

Unfortunately, a difference of only a few degrees in storm heading over a 24 hour period can be crucial considering the small size of many storms.

It is, of course, important that meteorologists in the Maritimes and Newfoundland carefully examine the forecasts originating at the NHC. In some cases, fine tuning these U.S. forecasts using the techniques discussed in the last section can result in an improved overall forecast. Naturally, these considerations will tend to be more important as the storm moves away from areas of National Hurricane Center responsibility.

6. THE DECAY OF TROPICAL CYCLONES

6.1 General Factors

Tropical cyclones have their origins over very warm ocean waters with temperatures typically around 27°C or warmer, Although weak baroclinic impulses at upper levels of the troposphere may play an important role in initiating these cyclones, once the circulation is well developed, the primary source of energy is the latent heat released in the bands of convective clouds spiraling around the centre of the storm. The relatively law frictional drag over the ocean (compared to land) is also an important factor in the storm development.

If a tropical cyclone moves over the colder waters north of the Gulf Stream, it rapidly loses its source of latent heat energy as the air in the low levels of the storm becomes cooler and more stable with a much lower mixing ratio. If the storm moves inland it will encounter much increased frictional drag as well as losing the latent heat source. This will cause a more rapid weakening of the cyclone.

The rate of weakening of the circulation is a function of the size and hence the initial kinetic energy of the storm. A large storm can continue for some days over cool water and still maintain strong winds while a very small cyclone will weaken more rapidly given essentially the same track and general flow pattern.

The penetration of the strong circulation into northern latitudes will also depend on the speed of motion of the system. A rapidly moving storm can carry stronger winds into the Atlantic Region as it will not have had as long to weaken over the cooler waters.

Although weakening of hurricanes and tropical storms is expected on moving into northern latitudes, it is important to keep in mind that very few rapidly fade away to the point of insignificance. In a local forecast study, Tyner [37] gave three main alternatives for the behaviour of these decaying tropical disturbances:

(i) Absorption by a cold vortex (35% of cases).

(ii) Generation of a travelling wave on the polar front or become involved with an extratropical storm (40% of cases).

(iii) Move east into the Atlantic retaining some tropical characteristics (25%).

In the following two sections Tyner's criteria for the above alternatives are summarized. Since the majority of tropical cyclones evolve or are absorbed into extra tropical cyclones (classes (i) and (ii) above) this process will be discussed at greater length in Section 6.4.

6.2 Criteria for Capture by a Cold Vortex

The capturing vortex generally forms 12 to 48 hours before capture. The main criteria for capture are as follows:

(i) The storm is located to the east of a sharp to moderately sharp 500 mb trough and within approximately 5° latitude of the trough 24 hours before capture.

(ii) The storm is to the south or southeast of the 500 mb low. Once it moves to the northeast capture becomes unlikely unless a new 500 mb low develops further north.

(iii) The 500 mb low must show significant motion to the east or southeast.

The importance of the 500 mb analyses should be noted here. It is sometimes advantageous to make adjustments to the CMC machine analyzed charts by utilizing history and the plotted data,

6.3 Criteria for Evolution into a Wave on the Polar Front

(i) This invariably happened 6 to 12 hours after the storm began moving through the long wave 500 mb ridge in the Atlantic.

(ii) In most cases, the storms were in a strong west southwesterly flow.

Some storms satisfying the latter criteria may move off into the Central Atlantic Ocean retaining some tropical characteristics and not become classical frontal waves although moving quite close to the polar front position.

6.4 Evolution or Absorption into Extratropical Cyclones

In Tyner's case study, approximately 75% of the tropical cyclones evolved or were absorbed into extra tropical cyclones. Some of the most intense storms on record in North America (such as that associated with hurricane Hazel in 1954) were of this general type.

During the process of evolution from tropical to extra tropical cyclone, the usual mid-latitude factors influencing development remain important. For example, positive vorticity advection in the mid troposphere, a strong baroclinic zone and cold air injection behind a frontal wave are all important considerations.

It has been noted by various investigators that possibly the most important indicator to watch for is the amplification of the long wave trough over the eastern part of the continent. This has been associated with the most severe storms of tropical origin in past years and is, of course, of equal importance in the development of ordinary extratropical cyclones. For instance, it has been calculated theoretically that with Hazel (1954) a severe storm would have developed in the Great Lakes area even without the influence of the hurricane.

Many tropical cyclones that are transformed into extra tropical systems will become major circulation features. They are less likely to be significant if, upon reaching the frontal zone, the flow aloft is anticyclonic or of a weakening cyclonic nature. Also, a storm moving slowly as it reaches the front will be more likely to weaken due to the effect of the cold air being rapidly swept into the low levels of the storm.

6.5 Interactions between Tropical and Extratropical Systems

In addition to the alternatives discussed up to this point, there can be more subtle, but perhaps important, interactions between tropical storms and nearly extratropical lows or frontal systems even though the separation between the systems is still relatively large (say of the order of 500 km or more).

One type of interaction that can occur involves complex exchanges of energy at various levels of both systems. This example of this type of interaction was discussed by F. Kornegay and J. Edman [21] in a numerical study of a particular case. It appeared that in this case, some of the energy which maintained the tropical system came from the extratropical system. Conventional numerical forecasting models will not handle this type of energy exchange very well unless the systems are reasonably large compared to the model grid length. In any case, the overall importance of this type of interaction has not been well documented.

An example of another type of interaction which has certainly been of importance at least once in Atlantic Canada occurred in August 1971, as hurricane Beth moved south of Nova Scotia. In this case, extremely heavy precipitation occurred several hundred kilometers to the north of the storm centre. The mechanism was judged to have been over-running on what had previously been thought to be a rather weak polar front. The storm dumped record amounts of over 250 mm of rain in the Halifax area in a little over a day although the strong winds characteristic of a tropical storm were not reported over the mainland.

The latter is an extreme case. Nonetheless it is not unusual for rainfall amounts in nearly extratropical systems to increase with the approach of a tropical system. This can be attributed to the warm humid air associated with a system of tropical origin combined with the locally increased vertical velocity due to the interaction of the tropical circulation with the frontal zone.

7. CHARACTERISTICS OF DECAYING TROPICAL CYCLONES

7.1 General

With the approach of a tropical cyclone, wind, rainfall, storm tides and waves are the parameters of primary concern from a forecasting viewpoint. Over land areas, the first two have generally been considered most important in the Atlantic Region. Damage from storm surges and waves along exposed coastlines can be very significant and this aspect is being given more emphasis in recent years. Marine interests are of course most interested in wind, waves and, to some extent, storm tides.

As a hurricane or tropical storm goes through its life cycle there are important changes in its general characteristics, in particular, the wind and precipitation patterns. In the Atlantic Region it is the decaying stage that is of most interest. Although each case will be different it is useful to consider some of the typical changes in these parameters that take place during this stage.

7.2 Changes in the Wind Pattern

In its early and mature stages, the wind pattern around a tropical cyclone is relatively symmetrical about the low pressure centre although the strongest surface winds will usually be slightly to the right of the storm track. The asymmetry in the wind pattern becomes more evident in the case of decaying storms and probably becomes more pronounced with acceleration of the storm. These changes can be related to the so called "isallobaric wind" effect, and hence also apply to extratropical storms to a degree. It has been noted [39] that in storms that strike New England and the Maritimes, the northerly winds to the left of the storm track are light compared to the often very strong southerly winds to the right of the track. Also, any strong winds to the left of the track do not generally have as great an extent.

While winds to the left of the centre may be weakening, it is common for gale winds to expand to the right of the storm track during the decaying stage, especially in the case where a ridge is building in the western Atlantic. In fact as a storm moves through its life cycle, there is a general tendency for the circulation of strong winds to expand to cover a larger area. This will be particularly true in those cases where a hurricane is transformed into a large baroclinic mid-latitude storm. In those cases where the cyclone weakens rapidly, the expansion of the circulation will be minimal.

Once landfall has been made there will normally be a tendency for friction to reduce the surface wind speeds. The magnitude of the effect will, of course, be a function of topography. Experience in the United States [7] suggests that hurricane winds will diminish to storm strength within three hours of landfall. The winds at higher elevations will weaken more slowly. If the storm moves over water again the circulation at low levels can increase significantly again. This effect can be important if, for example, a storm rapidly crosses the Maritimes and moves into the Gulf of St. Lawrence.

One of the most noteable features of the hurricane wind field is the "eye" or area of calm that often is found in the immediate vicinity of the centre. The average diameter of the wind eye is about 22 km although diameters of 40 km are not uncommon [7]. The eye size (or existence) is a function of the depth of the storm and the stage of development and size. In general, the eye diameter is directly proportional to the storm maturity and storm diameter.

If a storm is moving rapidly, as is often the case in the Atlantic Region, then the eye will tend to elongate in the direction of motion and has been reported as much as 140 km in length [7]. The eye will also become less distinguishable as the storm moves into northern latitudes although some remnants of it may persist for some time.

The winds in storms of tropical origin are characteristically gusty due to instability. Peak wind speeds can typically be 50% greater than the sustained winds. This characteristic will generally continue for some time into northern latitudes, particularly if the track of the storm gives rise to little modification of the air in the low levels. In combination with topographical effects wind gusts can result in locally severe and damaging winds.

7.3 Rainfall

Heavy rainfall is a well known characteristic of hurricanes and tropical storms. Maximum total rainfall amounts with mature hurricanes are typically in the 75 to 250 mm range at more southern latitudes [5]. The rain is organized into spiral bands that may be observed hundreds of kilometers from the storm. Between the bands there is little or no rain. The activity is usually located ahead and to the right of the storm. The rainfall is due largely to convection and is particularly intense in the ring around the eye. Cumulonimbus are often, though not always, associated with the most intense precipitation rates.

As the storm moves into northern latitudes, the heavy rainfall may be the most persistent tropical characteristic. Although the low level circulation may weaken, this change can be accompanied by increased low level convergence due to friction over land which contributes to a high rainfall rate. If the storm moves to higher terrain and particularly along a mountain range, rainfall will be very high in the areas of upslope flow. Increased baroclinicity in the form of a dome of cold air can have a similar effect.

The sector of heaviest rainfall tends to shift from the right front quadrant to the left front quadrant as the storm moves northward. This is consistent with the trend for the storm to become more baroclinic (or extra-tropical) in character. The rainfall will likely be heaviest near a frontal system that is becoming involved in the storm. Some thunderstorm activity may continue but there is normally a tendency for this to decrease as the low level air stabilizes over colder water.

One factor which can reduce extreme rainfall accunmlations in the Maritimes and Newfoundland, compared to more southern locations, is the high speed at which many tropical cyclones move through the Region.

7.4 Swell, Waves and Tides

In southern latitudes, probably the most dangerous aspect of a hurricane is its effect on the sea state. Loss of life and property is highest in the zone near the shore which can be reached by the exceptionally high tides and waves generated during the passage of a storm. This is particularly true for low-lying coastal areas.

The same effects on swell, waves and tides can also be important in the Atlantic Region although probably not to the extent often witnessed further south. This is partly due to differences in the topography of the coastlines and partly to the higher speed of motion and general weakening of the storm as it moves north. The effect on the sea will be most important at those times when the normal astrononical tide is high, that is, near spring tides.

Miller[7] gives a good summary of hurricane effects on swell, waves and tides. In the following paragraphs we will give a brief summary of this material.

Sea swell is produced by decaying waves moving out of the area of strong winds into areas of relative calm. It is characterized by a smooth long wave length undulating form with movement frequently different from that of the prevailing wind. The major swell is produced by the strongest winds to the right of the hurricane track and these swells may move over a 1000 km in advance of the centre. This swell will have some effect on raising tide levels particularly in areas of shallow sloping bottom topography.

It is well known that waves generated in a tropical cyclone can be extremely high. In an average Atlantic hurricane, wave heights can reach 10-12 m and in extreme cases may reach or exceed 20 m. Again, the highest waves are associated with the highest winds just to the right of the centre. As a hurricane approaches a coastline the waves breaking on the shore can raise the tide level significantly in areas with a shallow sloping bottom.

The effect of meteorological factors on tidal levels is generally called the storm surge and is defined as the algebraic difference between the observed and astronomical tides, It has already been mentioned that swell and waves can affect the tides. Wind driven surface currents, wind "set-up" and atmospheric pressure also are important considerations.

The storm surge is generally highest in the onshore flow ahead and to the right of the storm centre while lowest tides are experienced in the offshore flow behind and to the left of the centre. These generalizations are dependent upon the angle between the coastline and the track of the hurricane, the shape of the coastline and the slope of the continental shelf. Highest surges occur where the angle between the coastline and the right of the storm track is 90° or less, where the wind driven currents and wind set-up are funneled into bays and estuaries and where the Continental shelf has a gentle slope.

Peak storm surges generally occur about 15-30 km to the right of the point of landfall. In some areas of the world a phenomenon called a hurricane wave (or "tidal wave", etc.) has been witnessed on rare occasions with tragic results. This wave is described as a "wall of water" that strikes the coastline with great rapidity. Its causes are open to debate and to the author's knowledge, has never beeen reported outside of the tropics or subtropics.

8. CONCLUDING REMARKS

This paper represents an attempt to distill, from a variety of sources including personal observation, a brief summary of the facts on tropical (and subtropical) cyclones that are most relevant to the Atlantic Region. A great deal of detail has been left out which the reader is encouraged to pursue by delving into some of the material listed in the Bibliography.

Only a few actual cases have been mentioned in this text. It is informative, if possible, to examine the surface maps for at least a few "representative" cases. A series of maps on microfilm (as available at Atlantic Regional Office, Bedford, N.S.) provides a suitable method of doing this. Some examples that may be looked at are:

Beth	10th to 17th of August, 1971
Blanche	27th to 29th of July, 1975
Faye	22nd September to 3rd of October, 1975
Belle	7th to 12th of August, 1976

Example synoptic maps for these cases can be found in the Appendix.

The annual review of tropical cyclones in the Monthly Weather Review (April issue) is a source of cases complete with plotted tracks and brief descriptions.

The dearth of case studies and other studies related specifically to decaying tropical cyclones in Atlantic Canada suggests that more work could be done to fill out our knowledge of what has happened in this type of event. For example, extremes of rainfall, wind, tides, etc. observed during passages of hurricanes through the Region are not readily available. There is no information available on economic impacts. A study of past tropical cyclone tracks might be another useful endeavour. While it is recognized that the sparseness of available data will preclude detailed statistical analyses in many cases, it is hoped that this brief review may stimulate some research in these topics.

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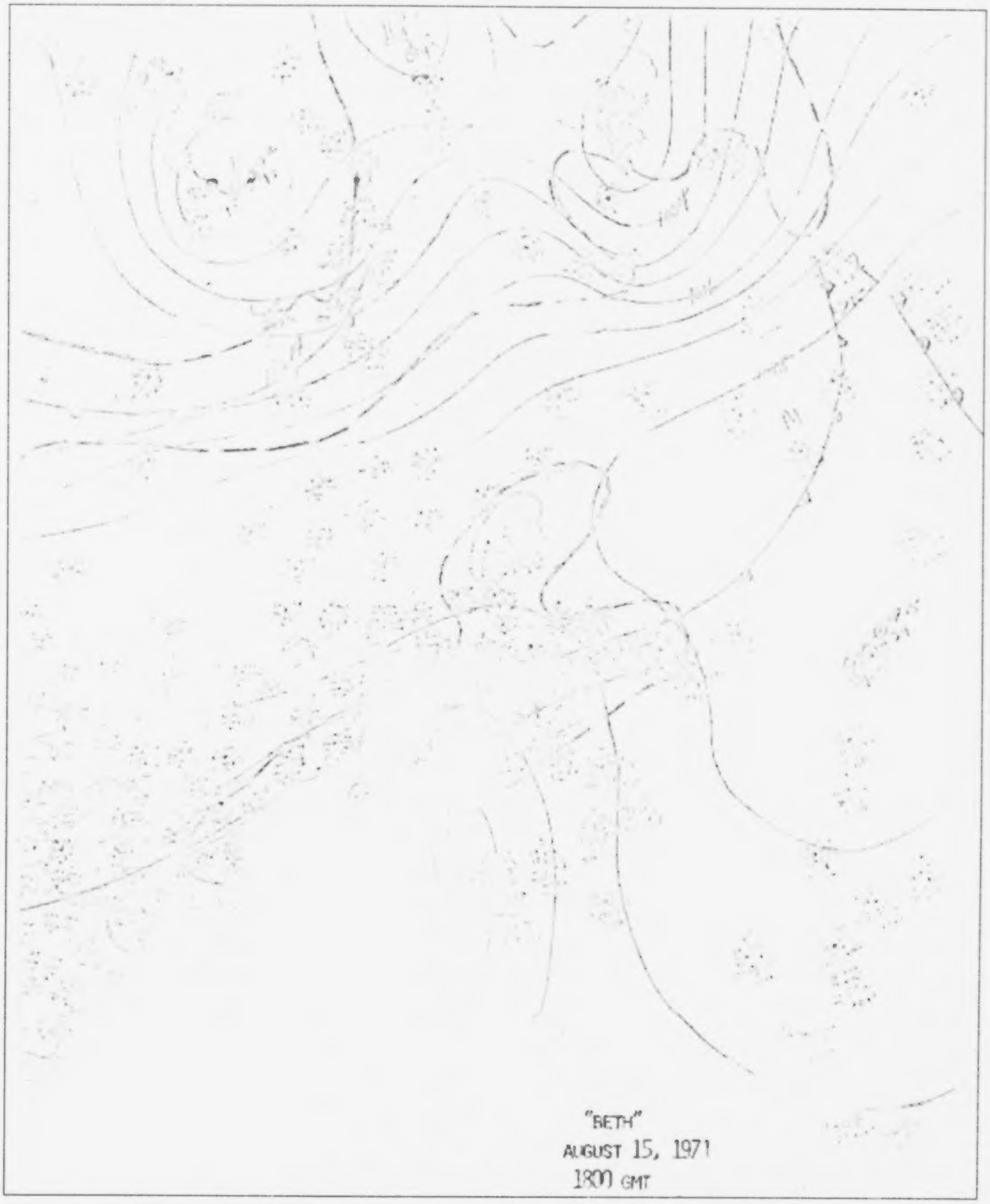
10. APPENDIX – EXAMPLE SYNOPTIC ANALYSES



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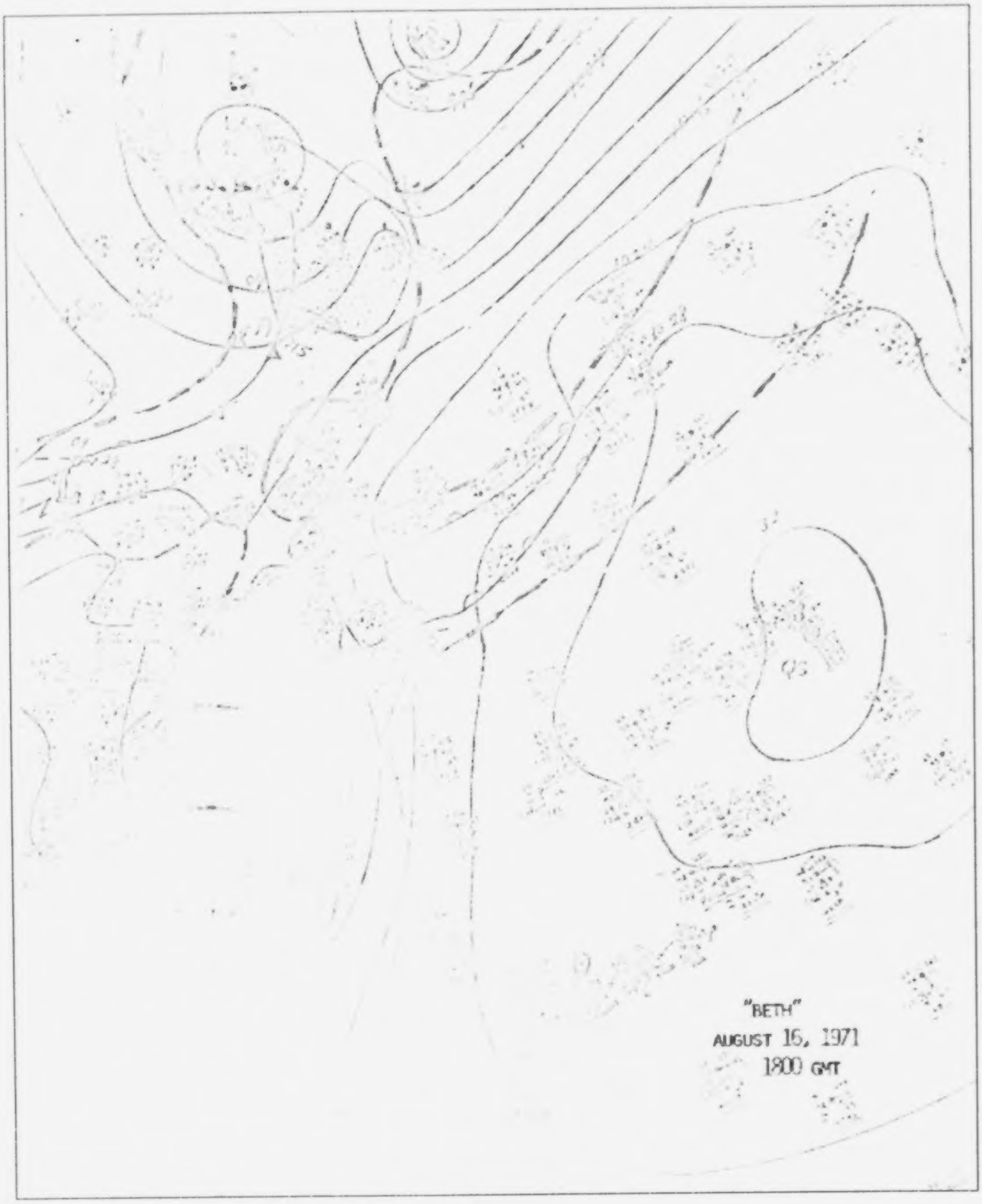
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"BLANCHE"
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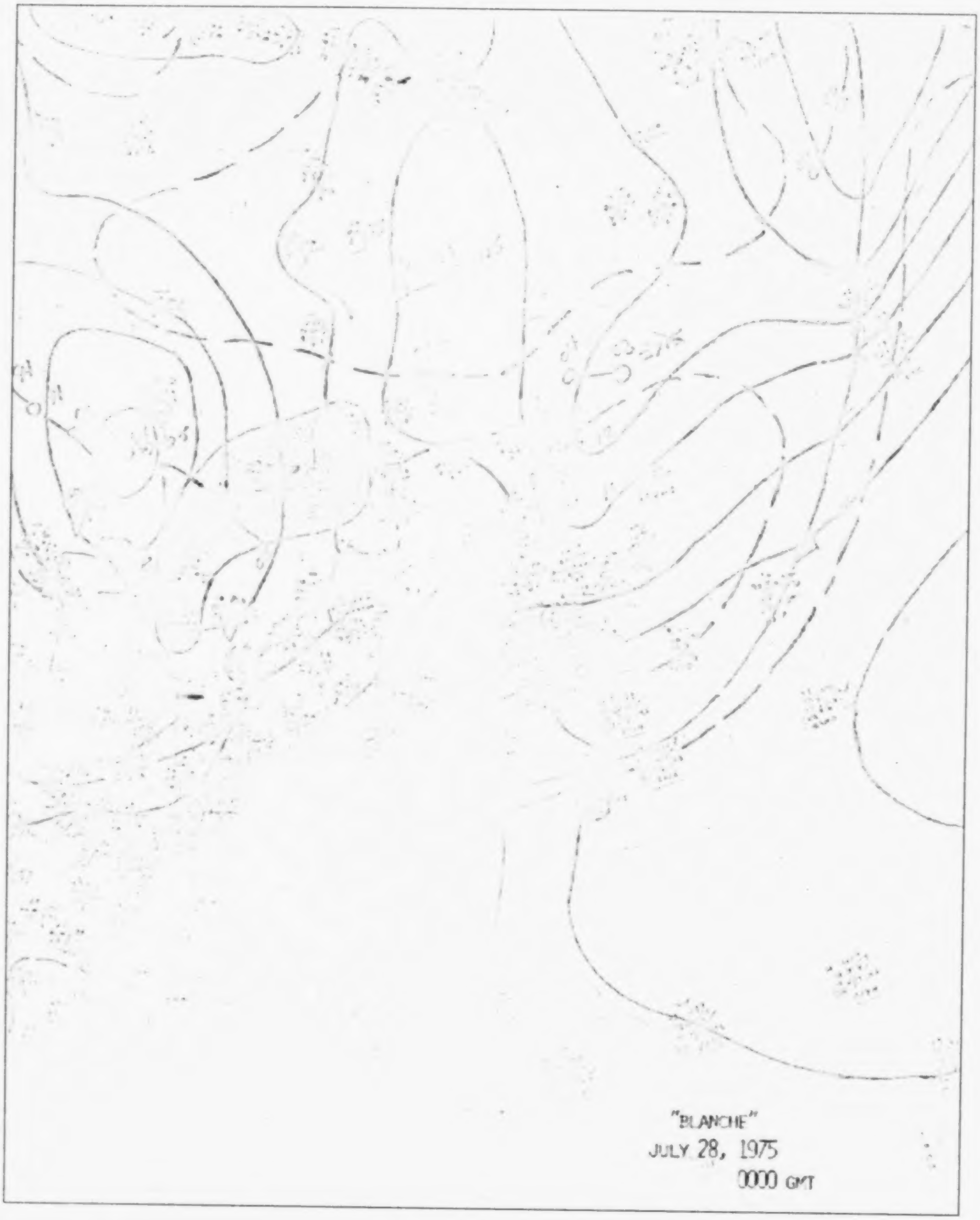

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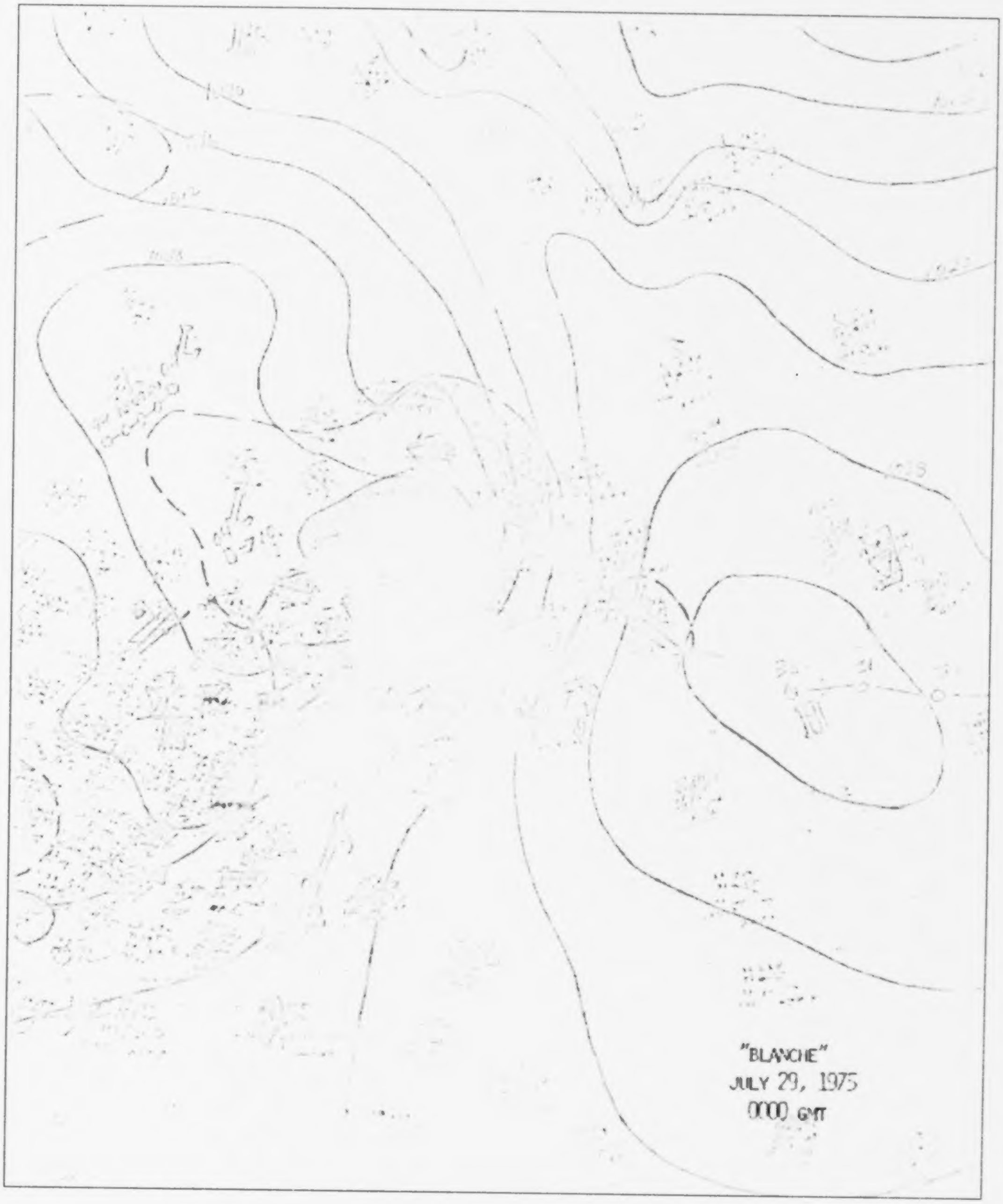

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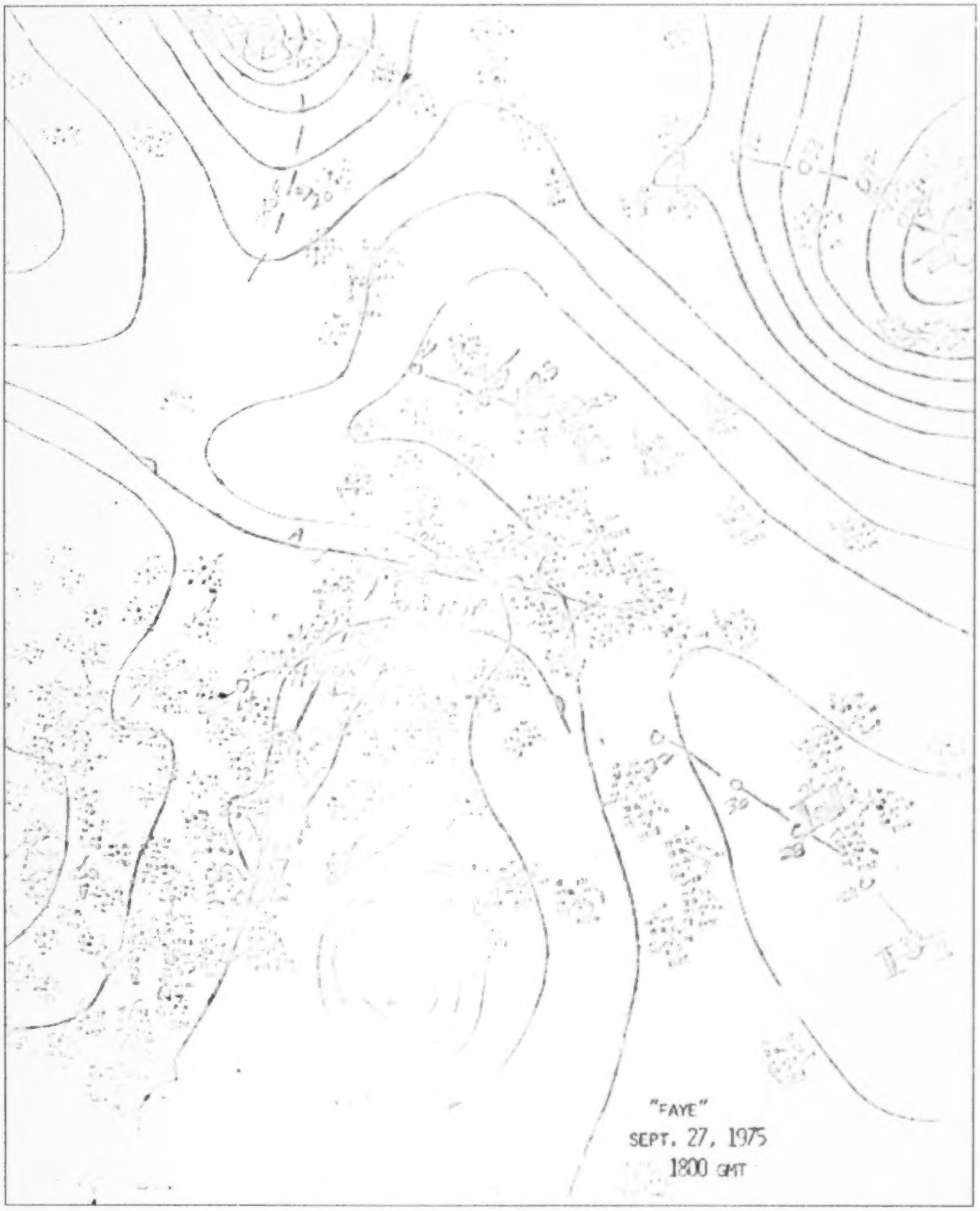
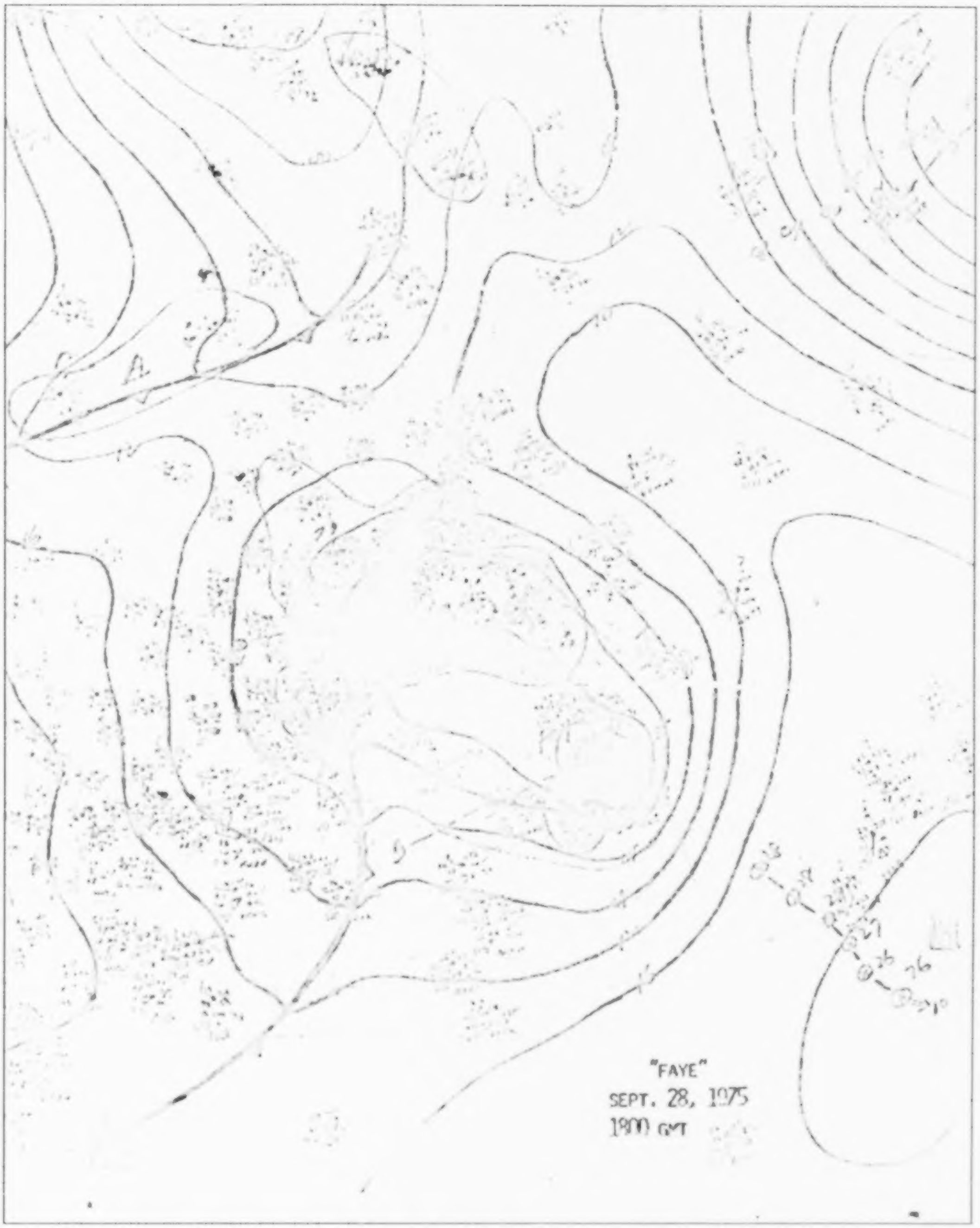
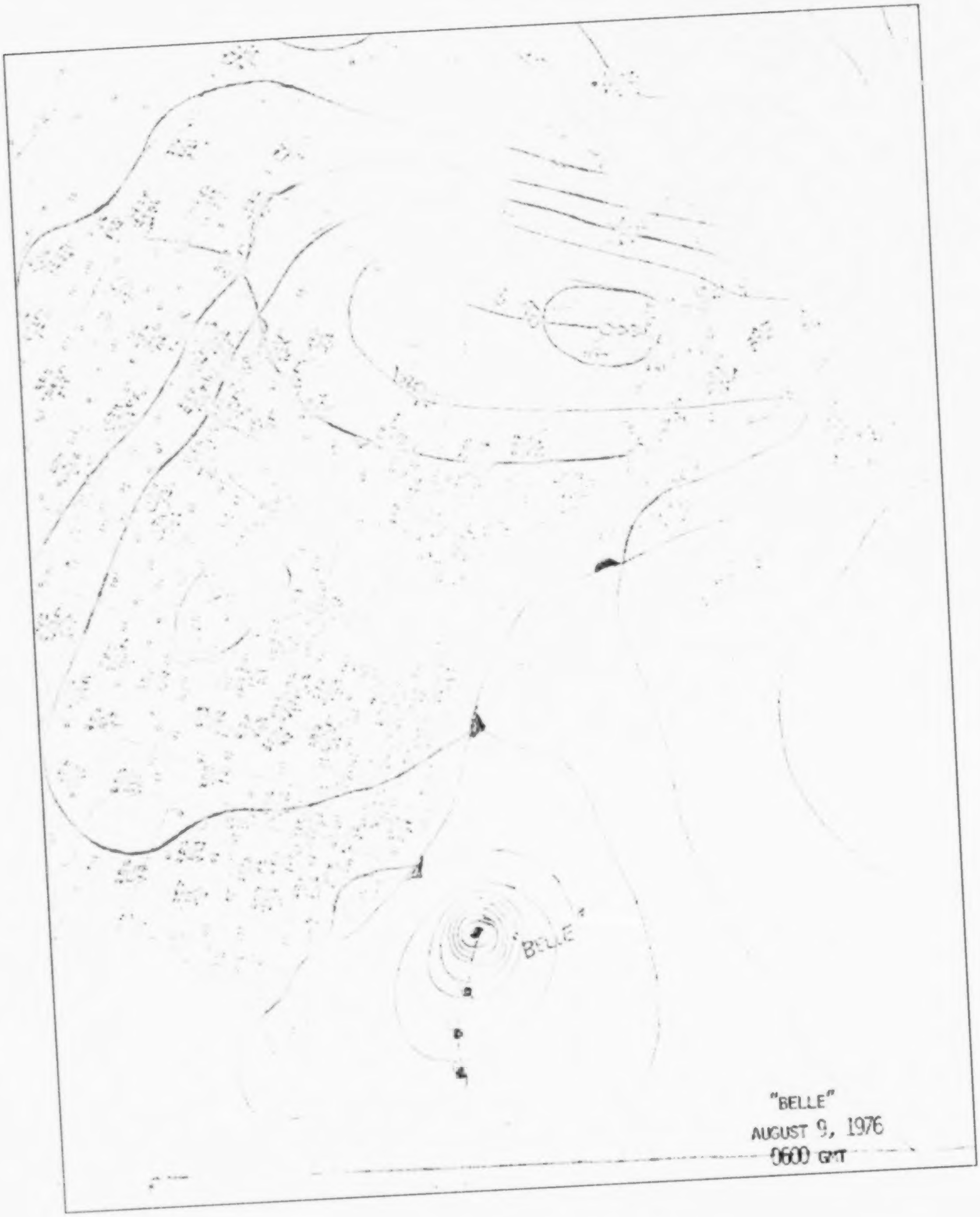


"FAYE"
SEPT. 27, 1975
1800 GMT


"FAYE"
SEPT. 28, 1975
1800 GMT


BELLE
"BELLE"
AUGUST 9, 1976
0600 GMT

"BELLE"
AUGUST 11, 1976
0000 GMT